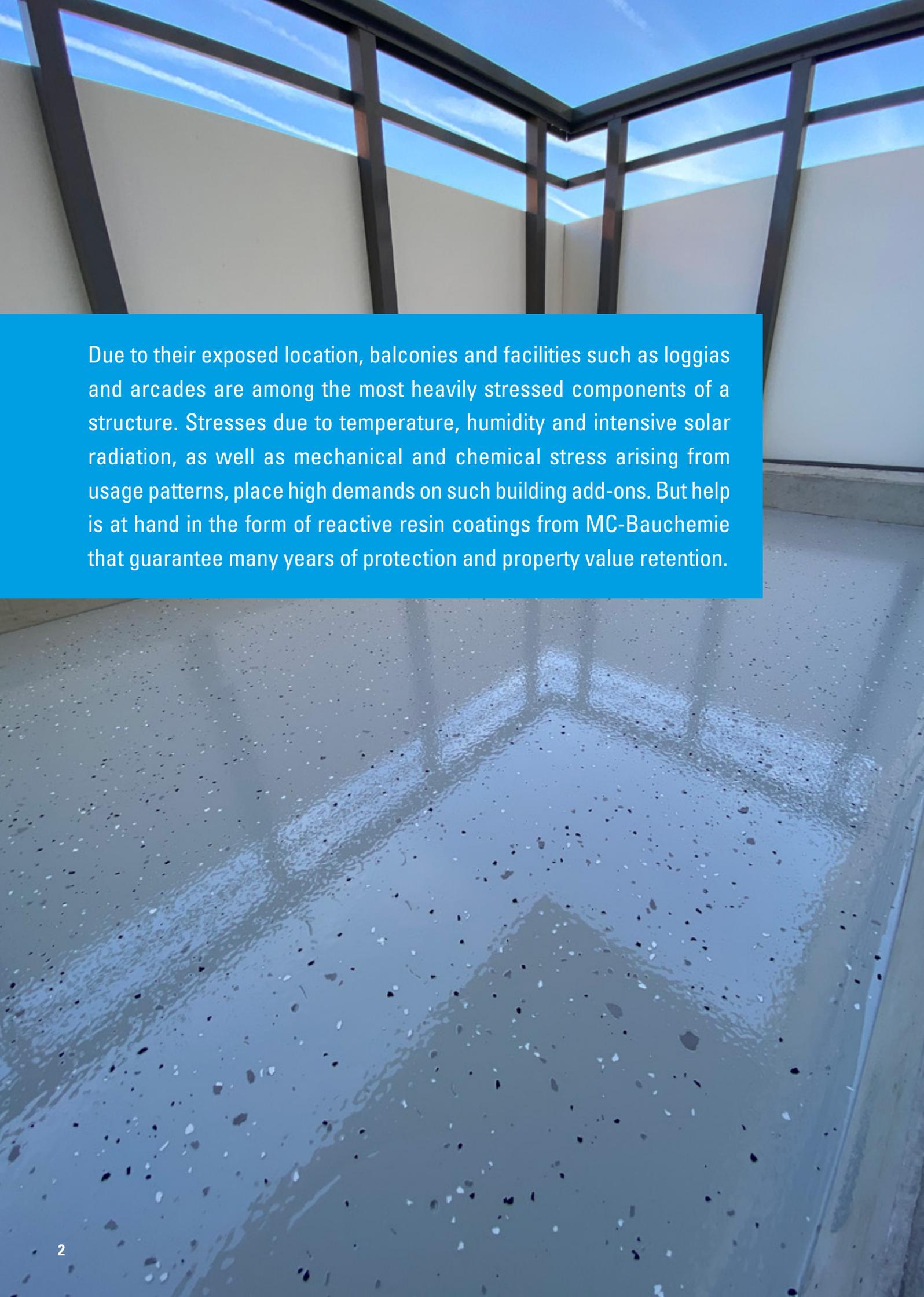




## **Waterproofing Systems for Balconies, Walkways and Roofs**

EXPERTISE  
FLOOR COATING





Due to their exposed location, balconies and facilities such as loggias and arcades are among the most heavily stressed components of a structure. Stresses due to temperature, humidity and intensive solar radiation, as well as mechanical and chemical stress arising from usage patterns, place high demands on such building add-ons. But help is at hand in the form of reactive resin coatings from MC-Bauchemie that guarantee many years of protection and property value retention.

# Truly Impenetrable

All waterproofing measures performed on such structures must comply with the relevant technical building regulations. The planning and execution of waterproofing measures are described, for example, in the German standard DIN 18531 "Waterproofing of roofs, balconies and walkways".

## Applicable European regulations

The use of a liquid waterproofing material, on the other hand, is regulated by a building authority test certificate (abP) or a European technical assessment (ETA). These documents are issued on the basis of the European assessment document EAD 030350000402 (formerly ETAG 005).

This brochure presents various coating and waterproofing systems that contribute to reliable property value retention. The systems offered range from a simple coloured coating with [MC-DUR TopSpeed](#) to a flexible, resistant waterproofing layer and sealer involving [MC-DUR TopSpeed flex plus](#).

MC-DUR TopSpeed flex plus is a liquid waterproofing system that meets the highest requirements as specified in European codes and standards. These include, for example, requirements for a service life of 25 years (category W3) and use in extreme climatic zones from -30 °C to +90 °C (**categories TL4 & TH4**).

## Attention to detail

When carrying out these waterproofing measures, special attention needs to be paid to detail work such as the formation of joints, connections and terminations at penetrations.

Although not specifically regulated under building authority control, it is essential that such works be performed with due care and professionalism in order to ensure ongoing integrity of such junctions under the influence of usage and environmental factors. This brochure offers a compendium of coating system structures for different applications together with the corresponding junction detailing information.

# MC-DUR TopSpeed – The Versatile Coating and Waterproofing System

The coating of roofs, balconies and walkway structures such as loggias and arcades requires particularly careful planning and execution. In addition to national and European codes and standards, there are other requirements that a waterproofing system needs to fulfil if it is to be deemed suitable.

These include, for example, speed of application, moisture tolerance, sustained UV and colour stability, plus the possibility of laying different coating system structures depending on the desired design, the area of application involved and subsequent usage patterns. The functions performed by the MC-DUR TopSpeed system range from a simple colour design to a permanently resistant waterproofing layer under a slab superstructure as the basis for a sustainable green roof.

- **Coating application at 2 °C – 35 °C**
- **Moisture tolerant coating structure**
- **Fast curing behaviour**
- **High crack-bridging capability**
- **UV-stable**

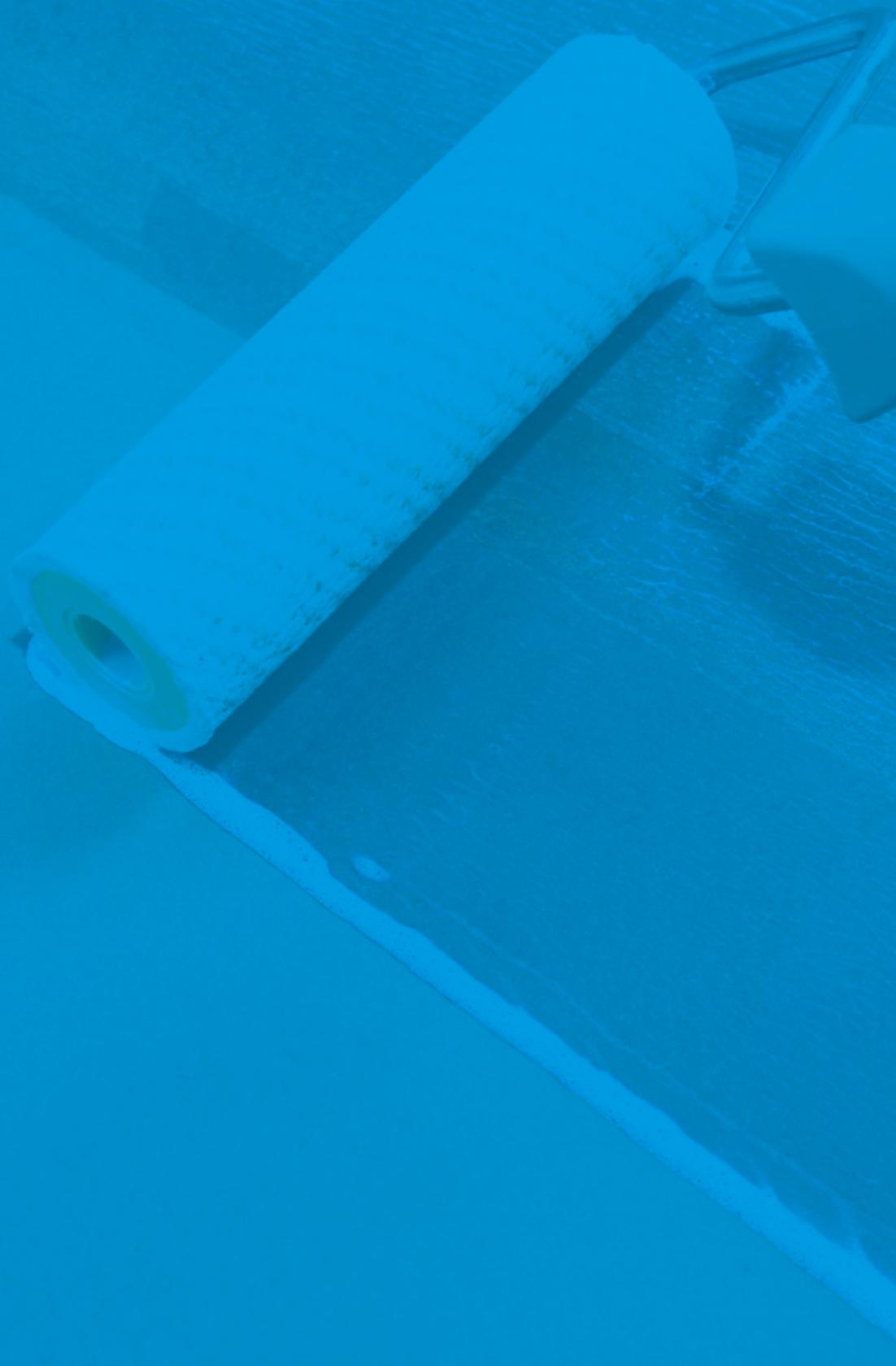




# Contents

<b>Primer list</b>	<b>7</b>
<b>System build-ups</b>	<b>8 – 15</b>
Simple coloured coating	10 – 11
Structure in accordance with EAD 030350-00-0402 (formerly ETAG 005)	12
Structures compliant with DIN 18531	13 – 15
<b>Junction waterproofing details</b>	<b>16 – 39</b>
<b>01a:</b> Floor-wall joint	18
<b>01b:</b> Floor-wall joint with tiles	19
<b>02a:</b> Insulation	20
<b>02b:</b> Insulation with tiles	21
<b>03a:</b> Butt joint	22
<b>03b:</b> Butt joint with tiles	23
<b>04a:</b> Edge termination with gutter/channel	24
<b>04b:</b> Edge termination with gutter/channel and tiles	25
<b>05a:</b> Door joint, 5 cm	26
<b>05b:</b> Door joint, 5 cm, with tiles	27
<b>06a:</b> Door joint, 15 cm	28
<b>06b:</b> Door joint, 15 cm, with tiles	29
<b>07a:</b> Door joint, barrier-free access	30
<b>07b:</b> Door joint, barrier-free access, with tiles	31
<b>08a:</b> Pipe penetration/feed-through	32
<b>08b:</b> Pipe penetration/feed-through with tiles	33
<b>09a:</b> Gully without flange	34
<b>09b:</b> Gully without flange, with tiles	35
<b>10a:</b> Gully with flange	36
<b>10b:</b> Gully with flange, with tiles	37
<b>11a:</b> Railing base	38
<b>11b:</b> Railing base with tiles	39

# Primer List



# The Right Basis for Different Substrates

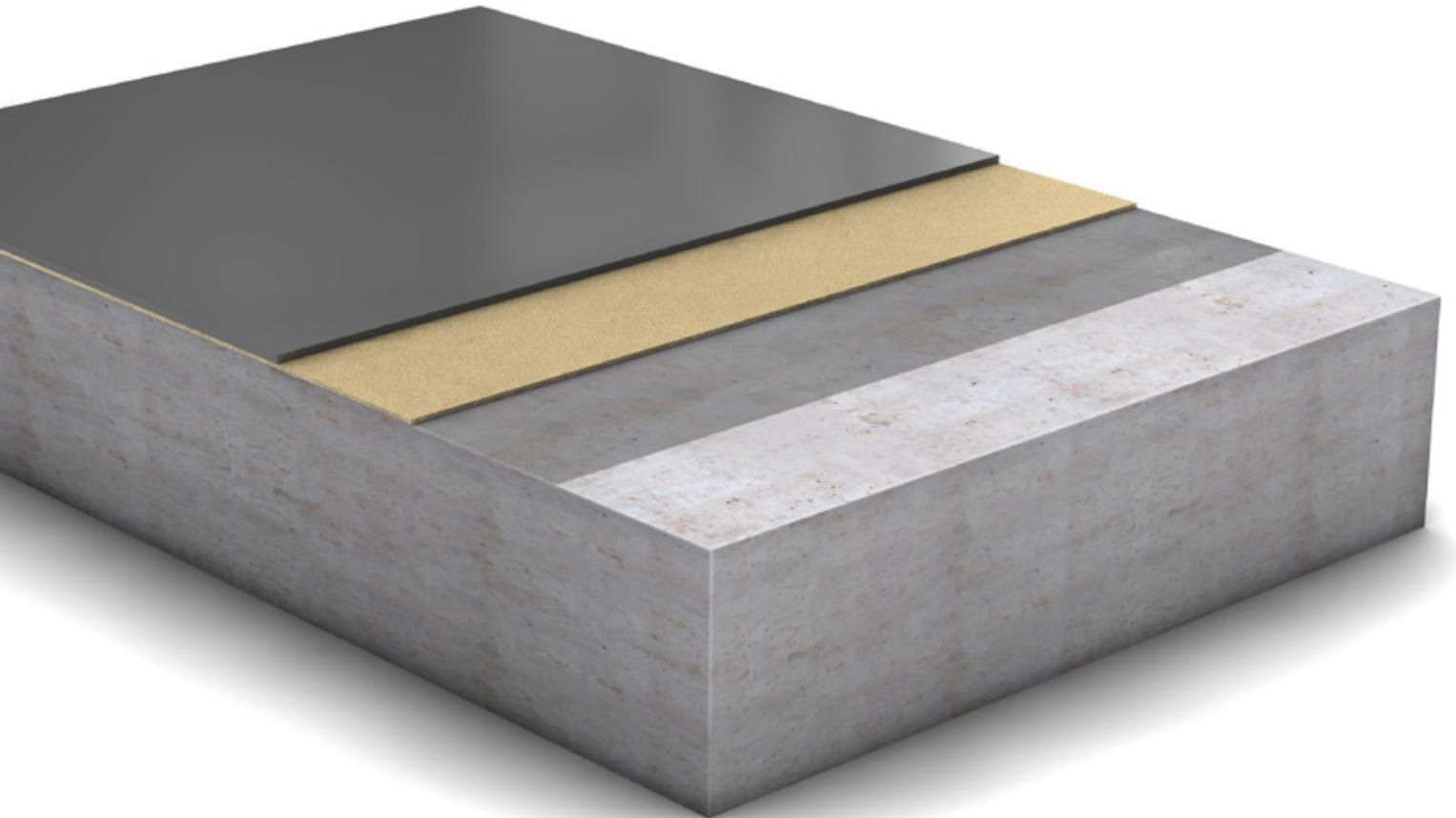
Mineral substrates and tiles	
Primer	MC-DUR 1177 WV-A
Scratch coat	MC-DUR TopSpeed SC / MC-DUR 1320 VK (with dry shake)
Waterproofing layer	MC-DUR TopSpeed flex plus
Reinforcing fabric	MC-Floor Tex
Steel	
Primer	Colusal Speed Primer / Mycoflex 251
Waterproofing layer	MC-DUR TopSpeed flex plus
Reinforcing fabric	MC-Floor Tex
Stainless steel	
Primer	Mycoflex 4100 TS
Waterproofing layer	MC-DUR TopSpeed flex plus
Reinforcing fabric	MC-Floor Tex
Soft wood, hard wood and foam insulation	
Primer	MC-DUR 1177 WV-A
Waterproofing layer	MC-DUR TopSpeed flex plus
Reinforcing fabric	MC-Floor Tex
uPVC and GRP polyester	
Primer	No primer necessary
Waterproofing layer	MC-DUR TopSpeed flex plus
Reinforcing fabric	MC-Floor Tex



# System build-ups

# System build-up

## Simple coloured coating

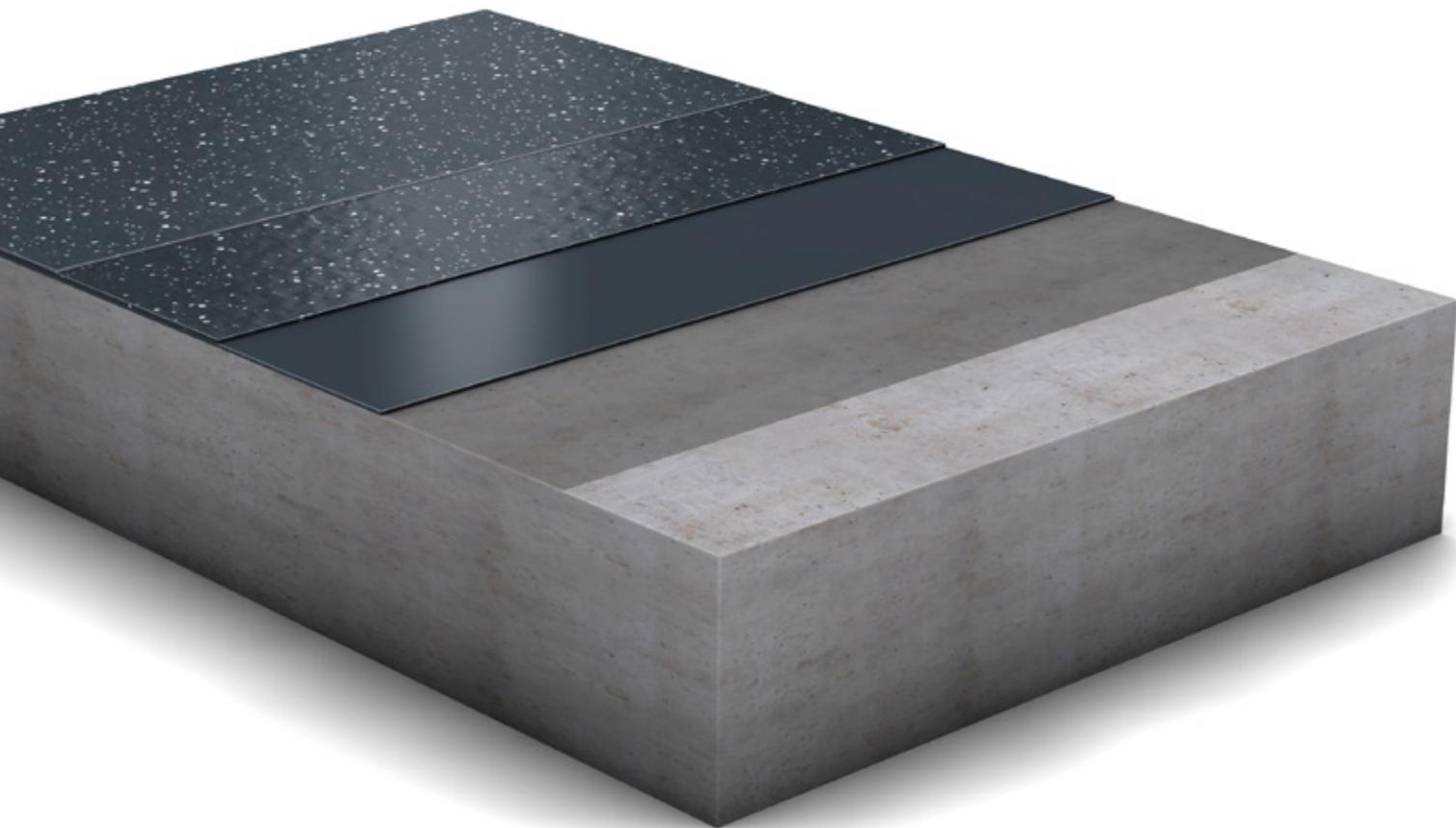


Primer	<b>MC-DUR 1177 WV-A</b>	approx. 300 g/m <sup>2</sup>
Scratch coat	<b>MC-DUR TopSpeed SC + QS (1:1)</b>	approx. 1,200 g/m <sup>2</sup>
Sealer	<b>MC-DUR TopSpeed + glass beads (3 - 5%)</b>	approx. 2 x 250 g/m <sup>2</sup>

QS = Quartz

## System build-up

### Simple coloured coating

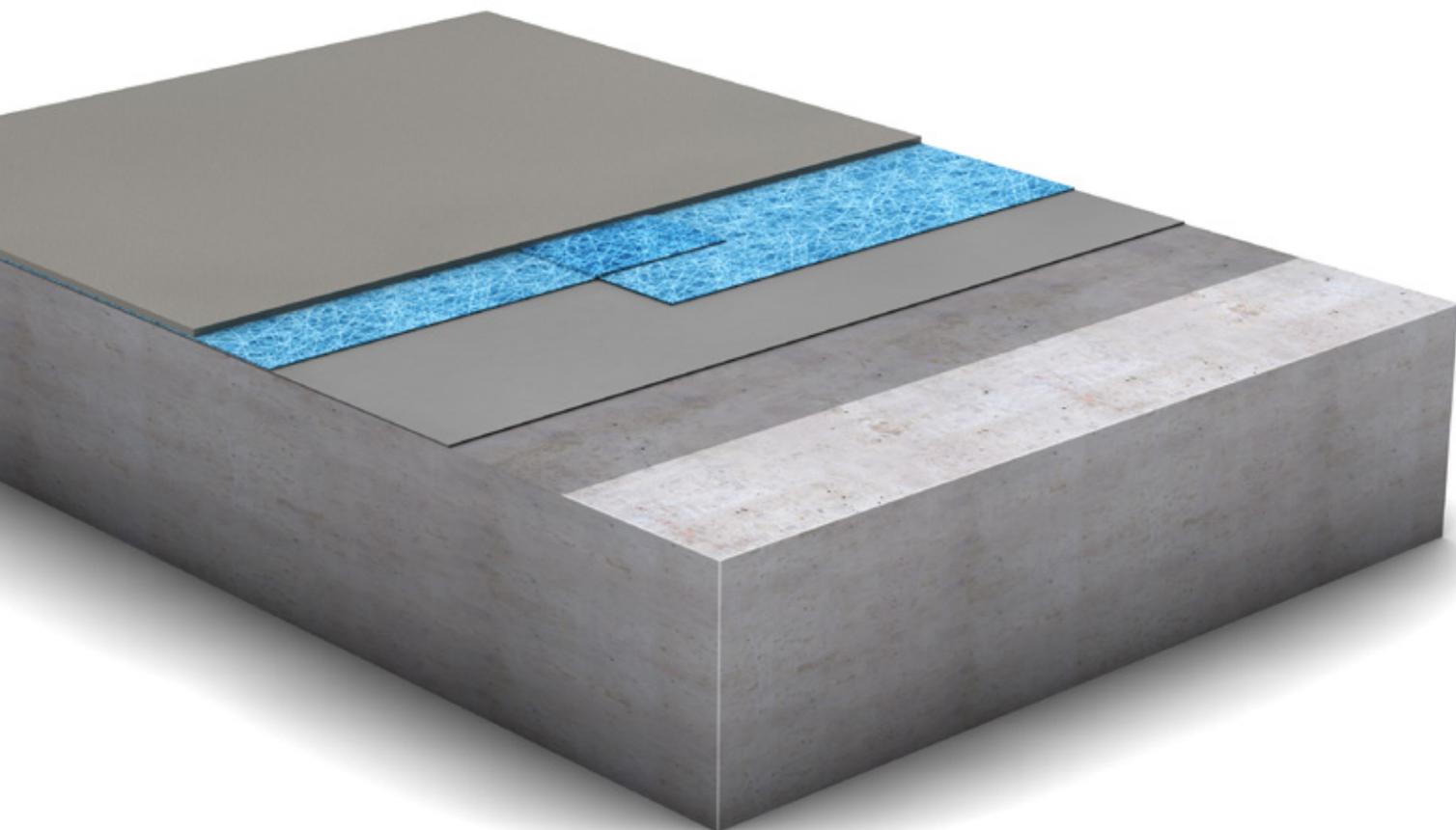


Primer	<b>MC-DUR 1177 WV-A</b>	approx. 300 g/m <sup>2</sup>
Coating	<b>MC-DUR TopSpeed</b>	approx. 2 x 250 g/m <sup>2</sup>
Dry shake	<b>MC-Dekorchips</b>	approx. 30 g/m <sup>2</sup>
Sealer	<b>MC-DUR TopSpeed M/T</b>	approx. 150 g/m <sup>2</sup>

## System build-up

### Structure compliant with EAD 030350-00-0402

(formerly ETAG 005)

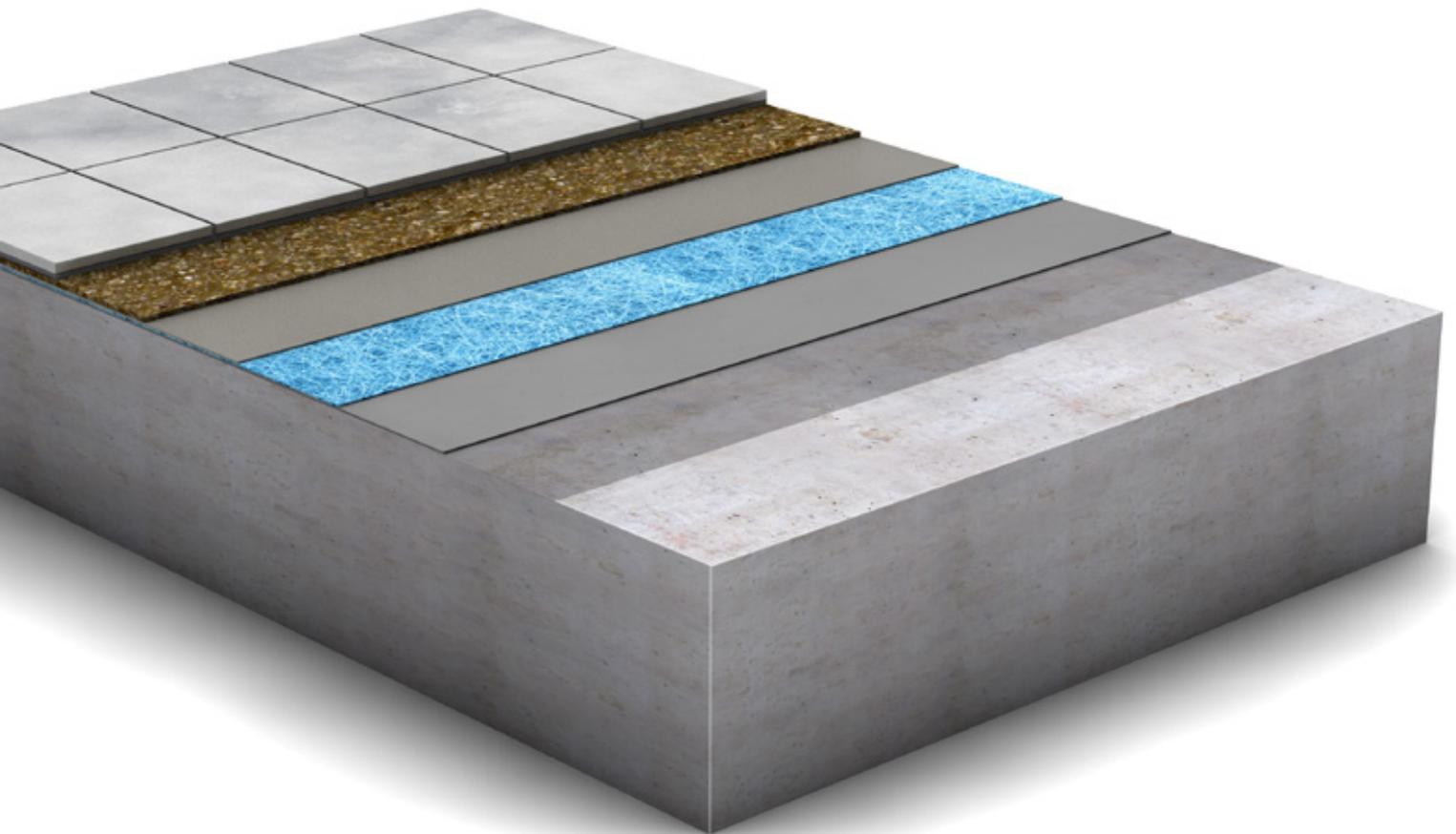


Primer	<b>MC-DUR 1177 WV-A</b>	approx. 300 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>
Reinforcing non-woven fabric	<b>MC-Floor Tex</b>	110 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>

QS = Quartz

## System build-up

# Coating structures compliant with DIN 18531

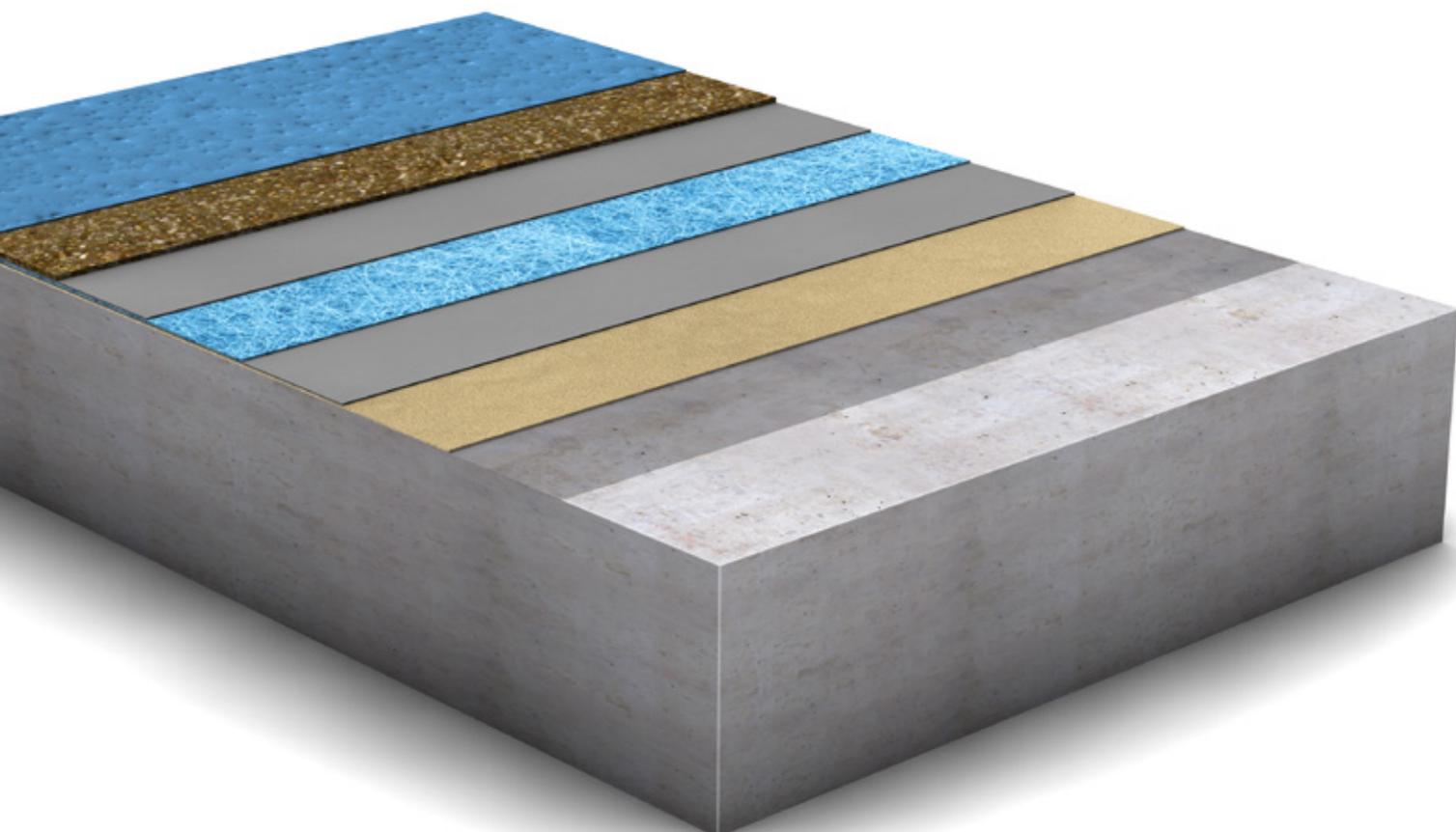


Primer	<b>MC-DUR 1177 WV-A</b>	approx. 300 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>
Reinforcing non-woven fabric	<b>MC-Floor Tex</b>	110 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>
Dry-shake layer	<b>MC-DUR TopSpeed flex plus + QS (surplus scatter)</b>	approx. 400 g/m <sup>2</sup>

QS = Quartz

# System build-up

## Coating structures compliant with DIN 18531



Primer	<b>MC-DUR 1177 WV-A</b>	approx. 300 g/m <sup>2</sup>
Scratch coat	<b>MC-DUR TopSpeed SC + QS (1:1)</b>	approx. 1,200 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>
Reinforcing non-woven fabric	<b>MC-Floor Tex</b>	110 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,250 g/m <sup>2</sup>
Dry-shake layer	<b>MC-DUR TopSpeed + QS (surplus scatter)</b>	approx. 400 g/m <sup>2</sup>
Sealer	<b>MC-DUR TopSpeed</b>	approx. 600 g/m <sup>2</sup>

QS = Quartz

## System build-up

# Coating structures compliant with DIN 18531



Primer	<b>MC-DUR TopSpeed SC</b>	approx. 300 g/m <sup>2</sup>
Scratch coat	<b>MC-DUR TopSpeed SC + QS (1:1)</b>	approx. 1,200 g/m <sup>2</sup>
Waterproofing layer	<b>MC-DUR TopSpeed flex plus</b>	approx. 1,000 g/m <sup>2</sup>
Dry-shake layer	<b>MC-DUR TopSpeed + QS (surplus scatter)</b>	approx. 400 g/m <sup>2</sup>
Sealer	<b>MC-DUR TopSpeed</b>	approx. 600 g/m <sup>2</sup>

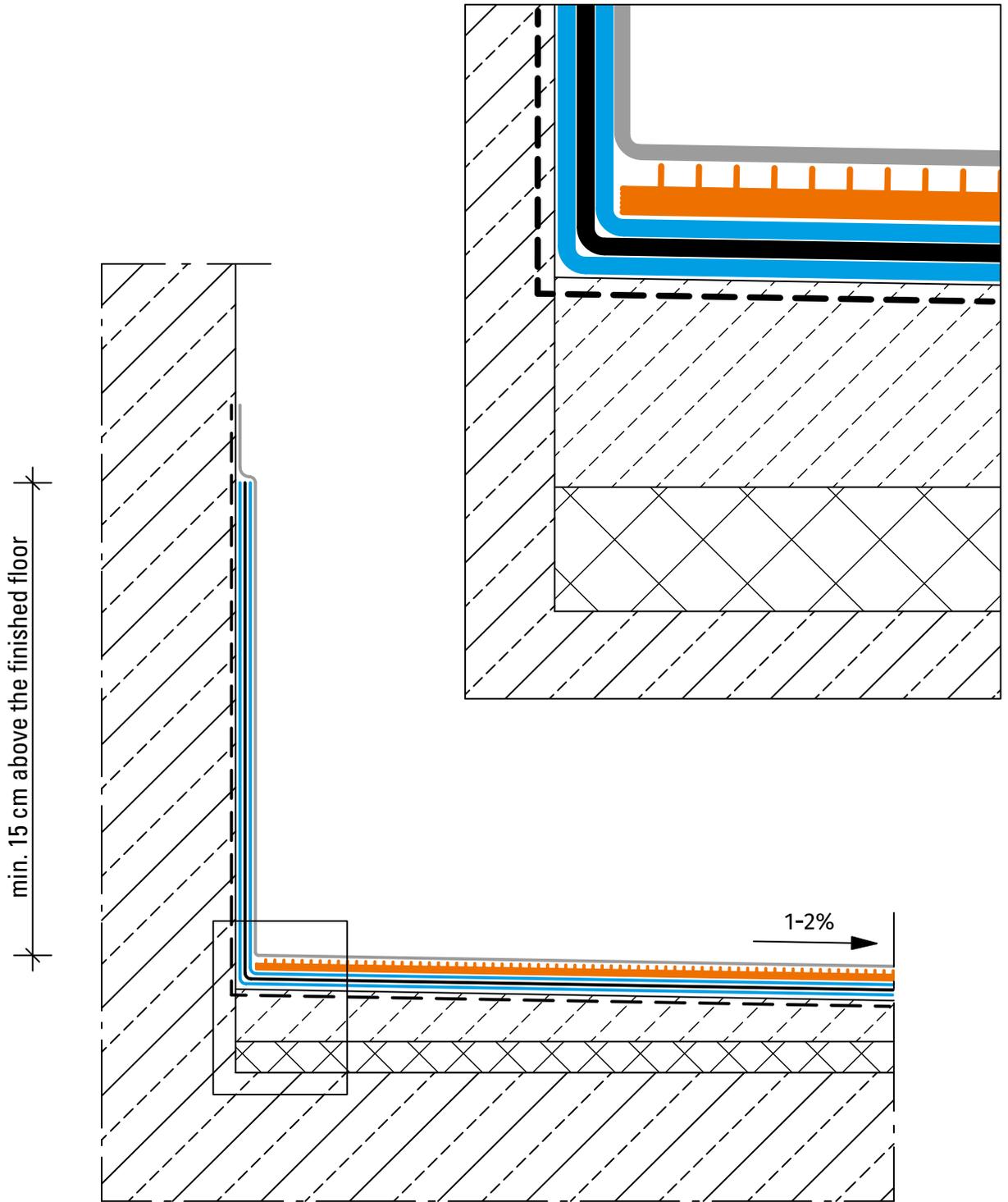
QS = Quartz



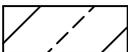
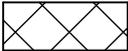
The background of the page is a blue architectural cross-section diagram of a roof junction. It shows a vertical wall on the left meeting a sloped roof on the right. The roof has a 1-2% slope, indicated by a triangle and the text '1-2%' on the right side. The diagram illustrates various layers: a top layer with a grid pattern, a middle layer with diagonal hatching, and a bottom layer with a brick-like pattern. A circular detail with a grid pattern is shown on the wall. The title 'Junction Waterproofing' is written in large white letters across the middle of the diagram.

# Junction Waterproofing

# 01a



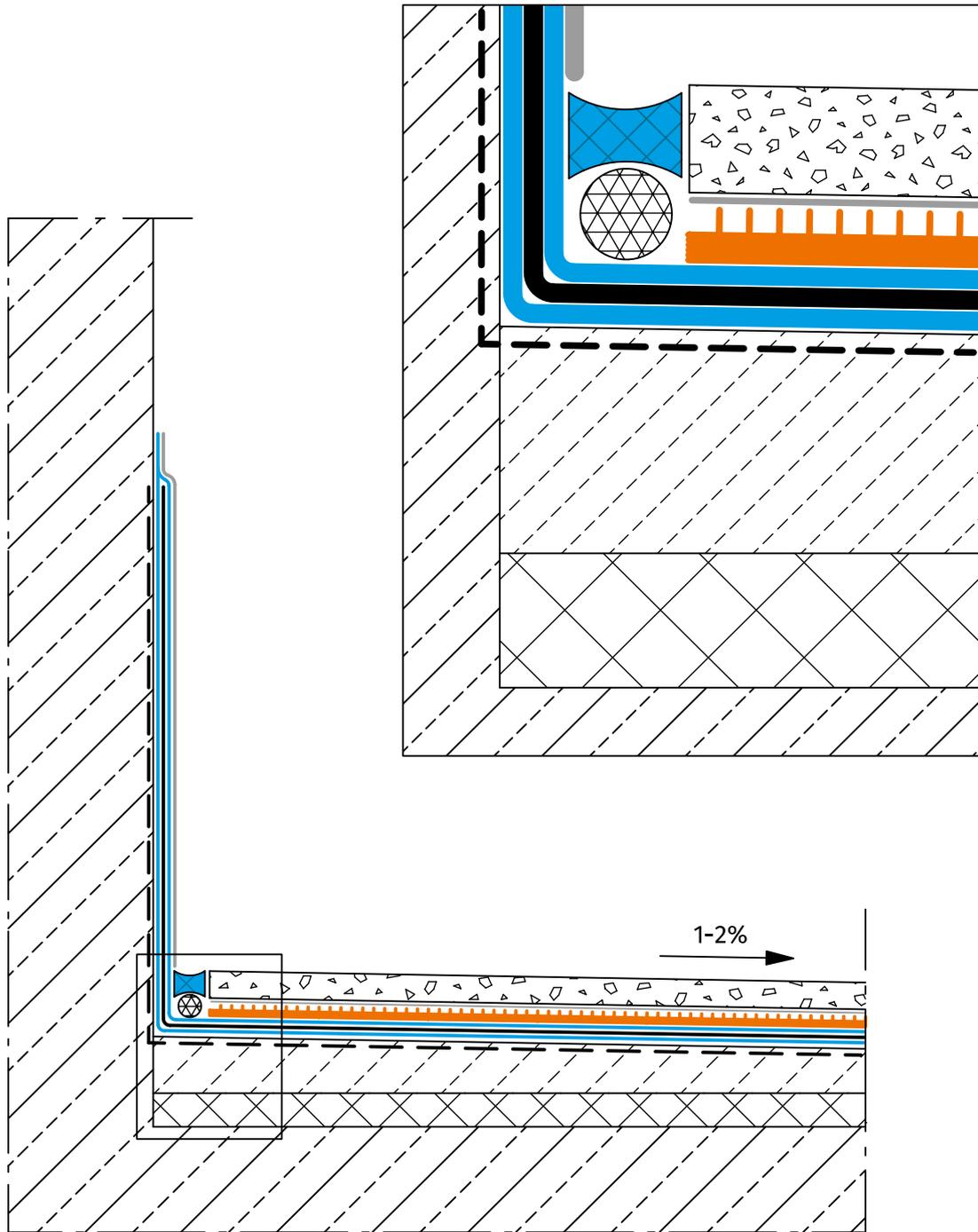
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-  substrate
-  drainage board
-  sloping screed
-  primer
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

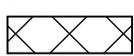
## Waterproofing detail 01a: Floor-wall joint

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed

min. 15 cm above the finished floor



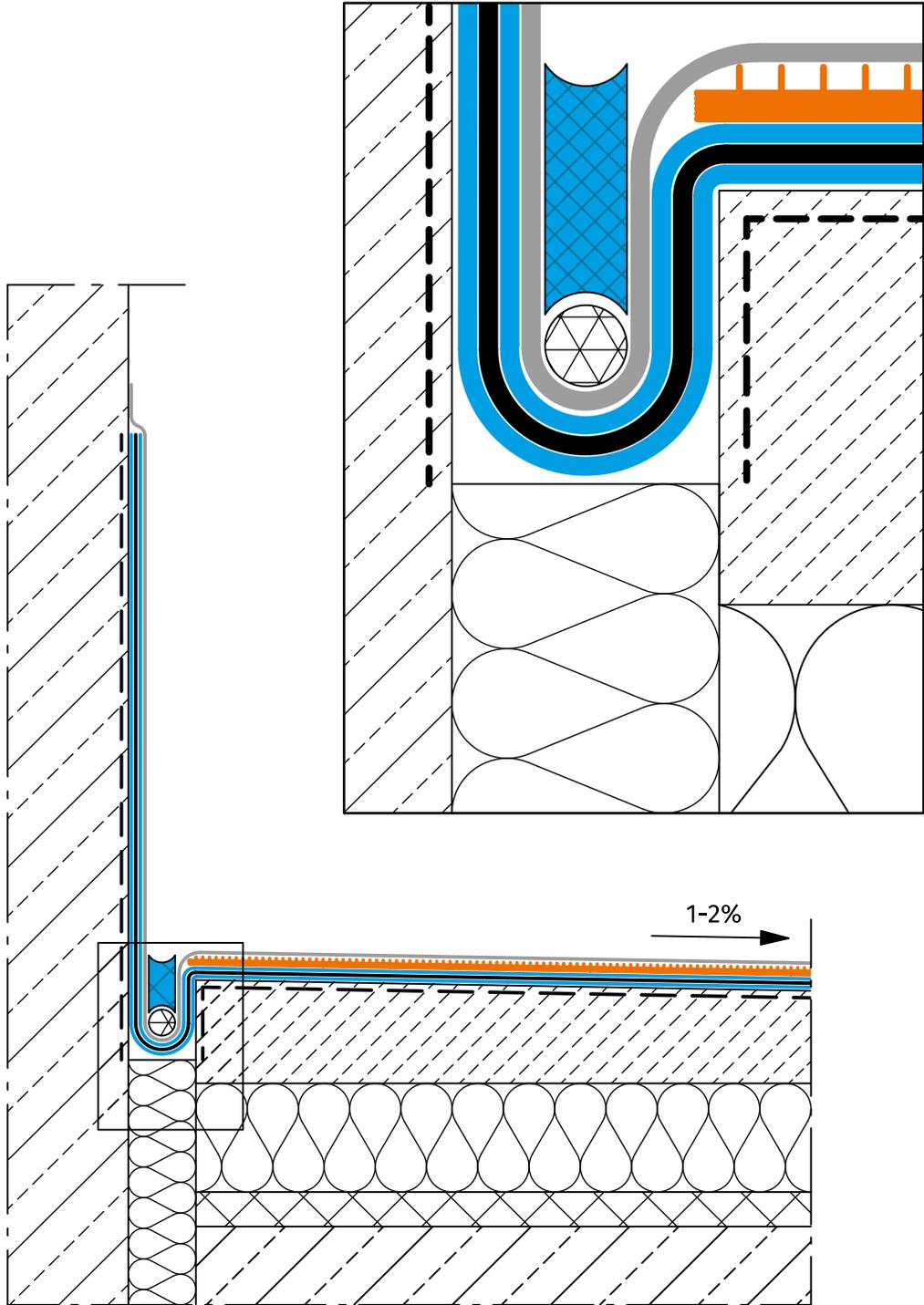
legend:

-  drainage board
-  sloping screed
-  elastic sealant
-  joint filler
-  tiles
-  drainage board
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

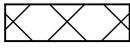
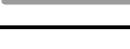
Waterproofing detail 01b: Floor-wall joint with tiles

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

min. 15 cm above the finished floor



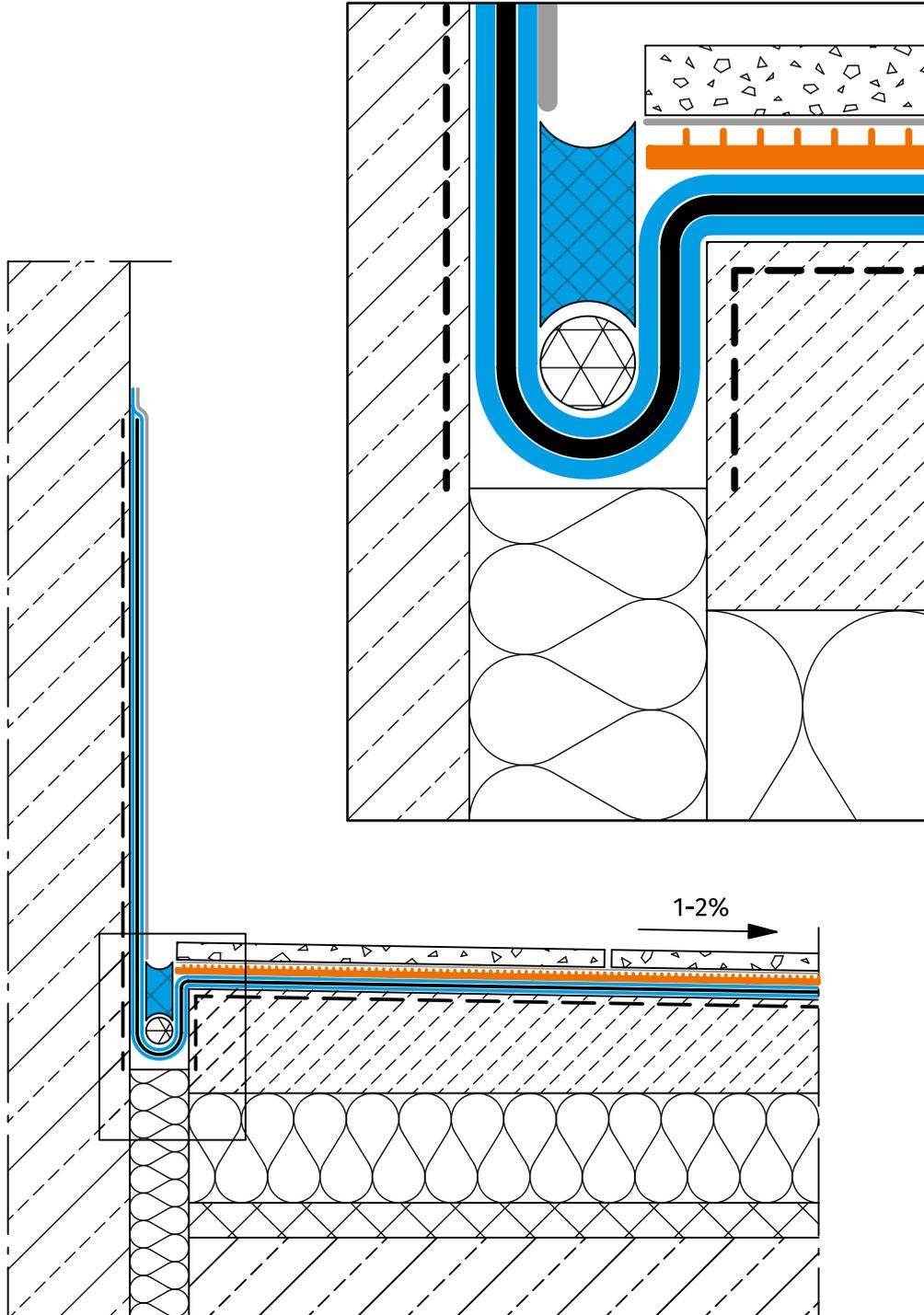
legend:

-  substrate
-  drainage board
-  sloping screed
-  elastic sealant
-  joint filler
-  primer
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

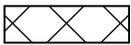
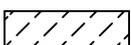
Waterproofing detail 02a: Insulation

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed

min. 15 cm above the finished floor



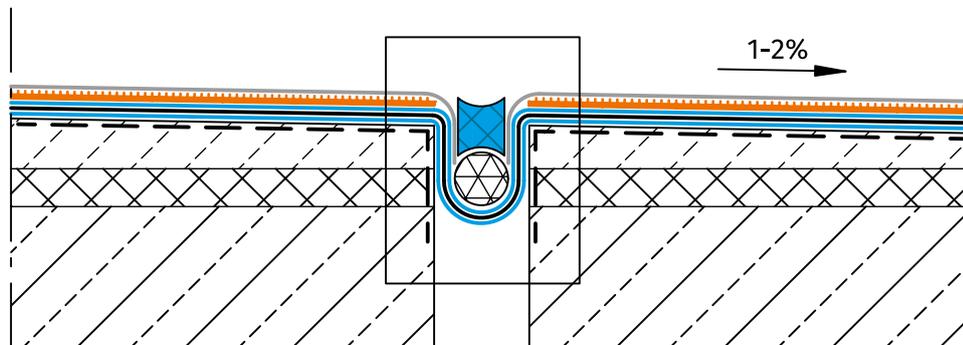
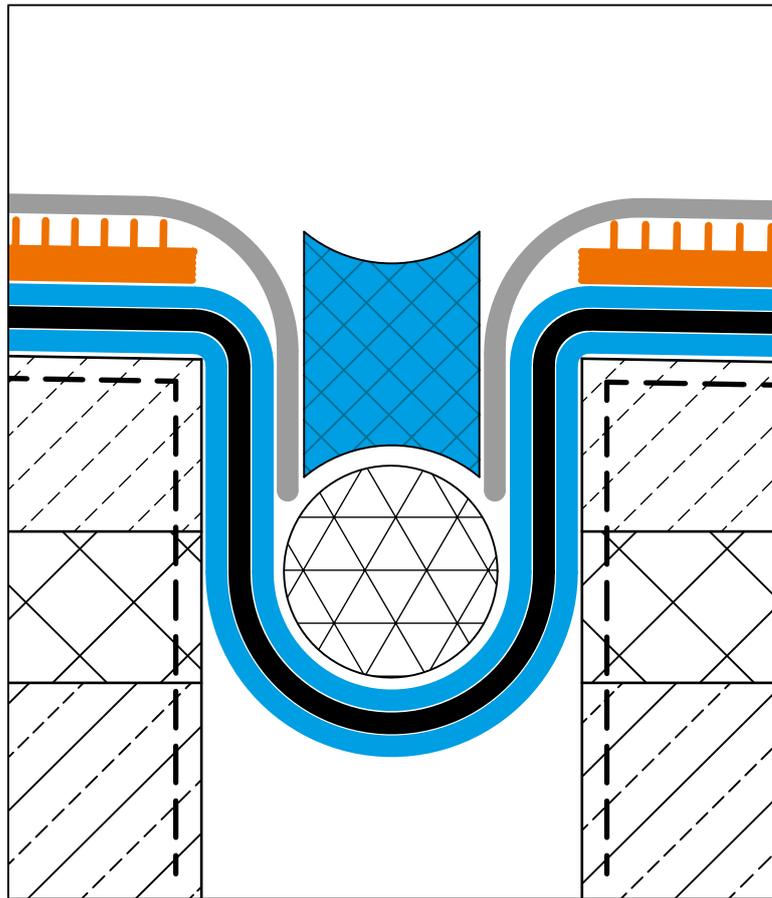
legend:

-  drainage board
-  sloping screed
-  elastic sealant
-  joint filler
-  tiles
-  primer
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

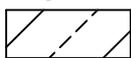
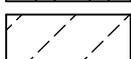
Waterproofing detail 02b: Insulation with tiles

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

03a

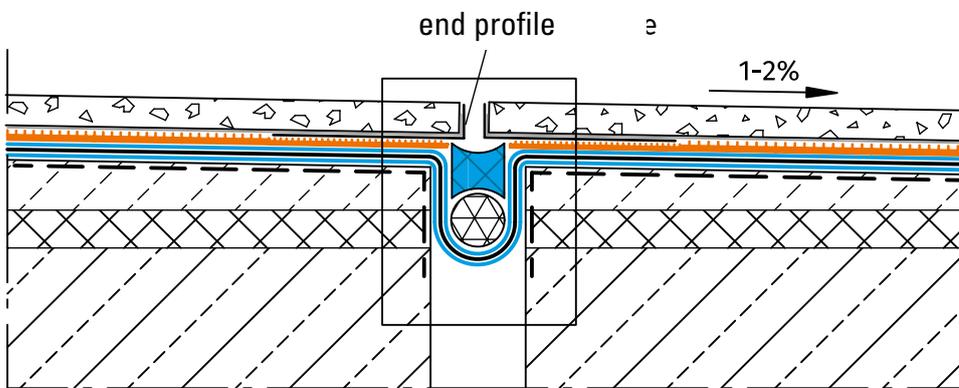
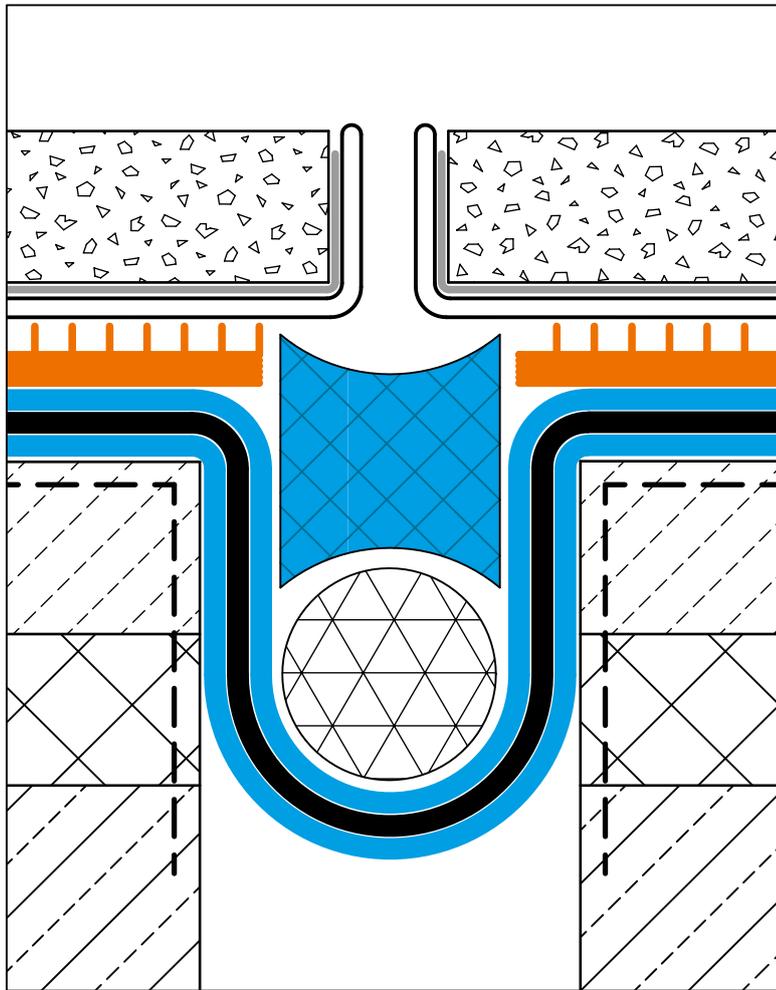


legend:

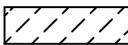
-  substrate
-  drainage board
-  sloping screed
-  primer
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing
-  joint filler
-  elastic sealant

Waterproofing detail 03a: Butt joint

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



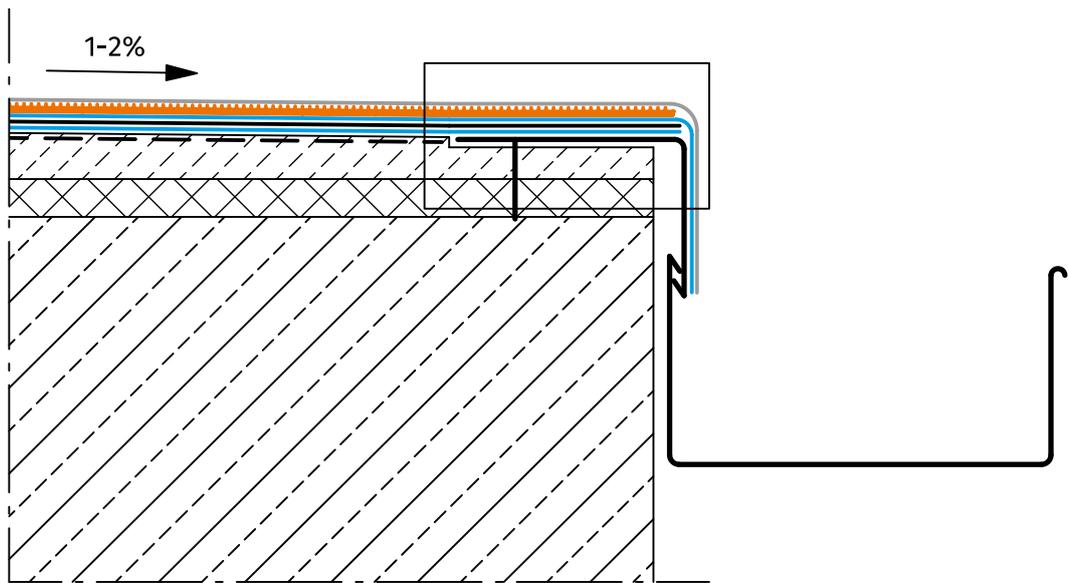
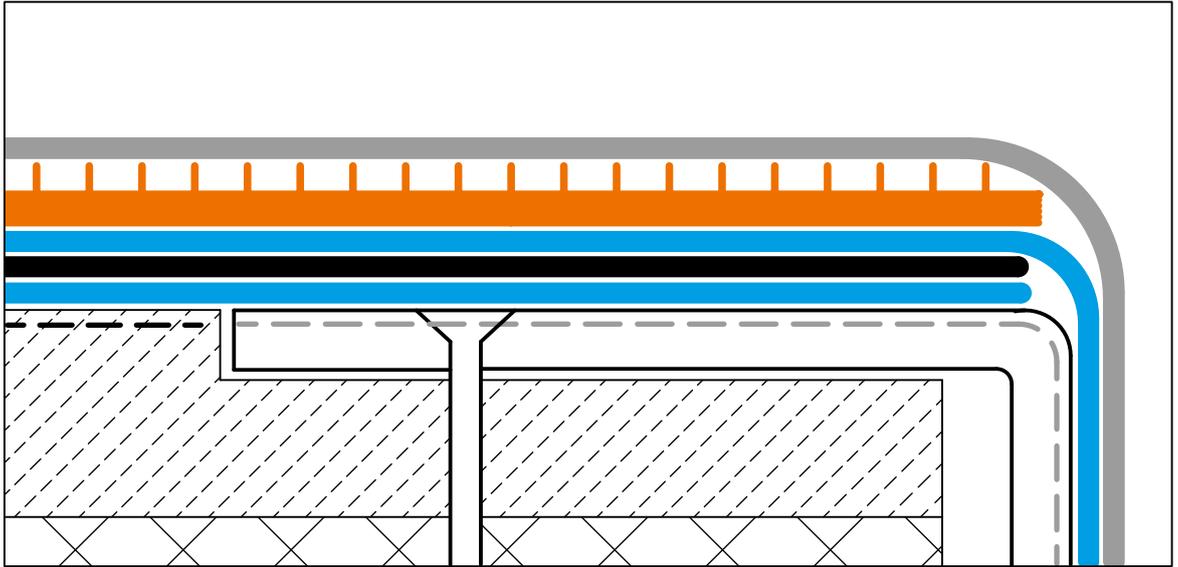
legend:

-  drainage board
-  sloping screed
-  elastic sealant
-  joint filler
-  tiles
-  primer
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

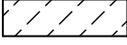
Waterproofing detail 03b: Butt joint with tiles

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

04a

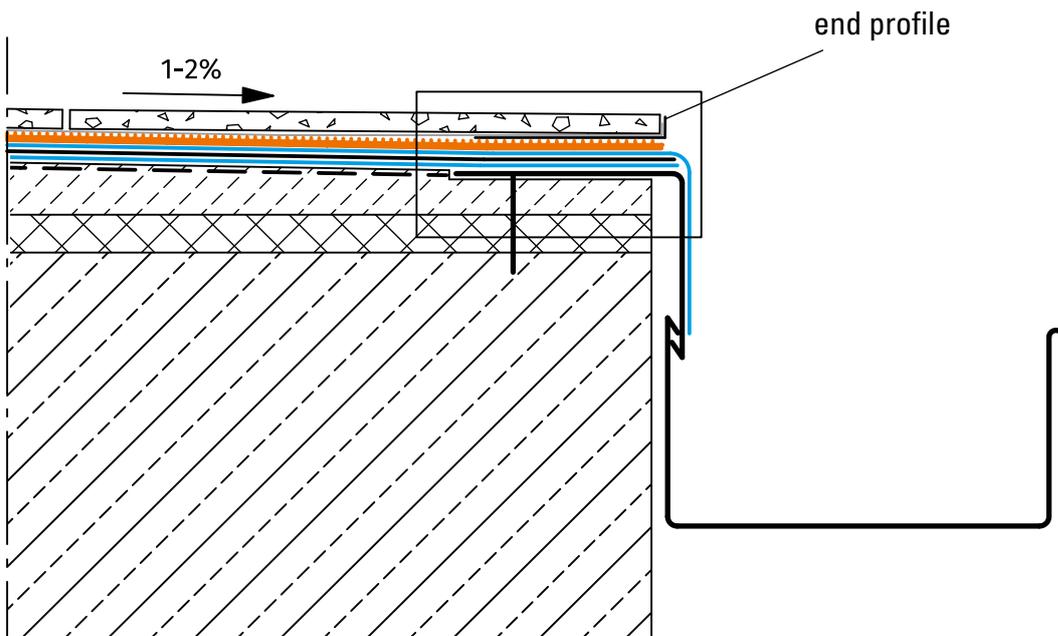
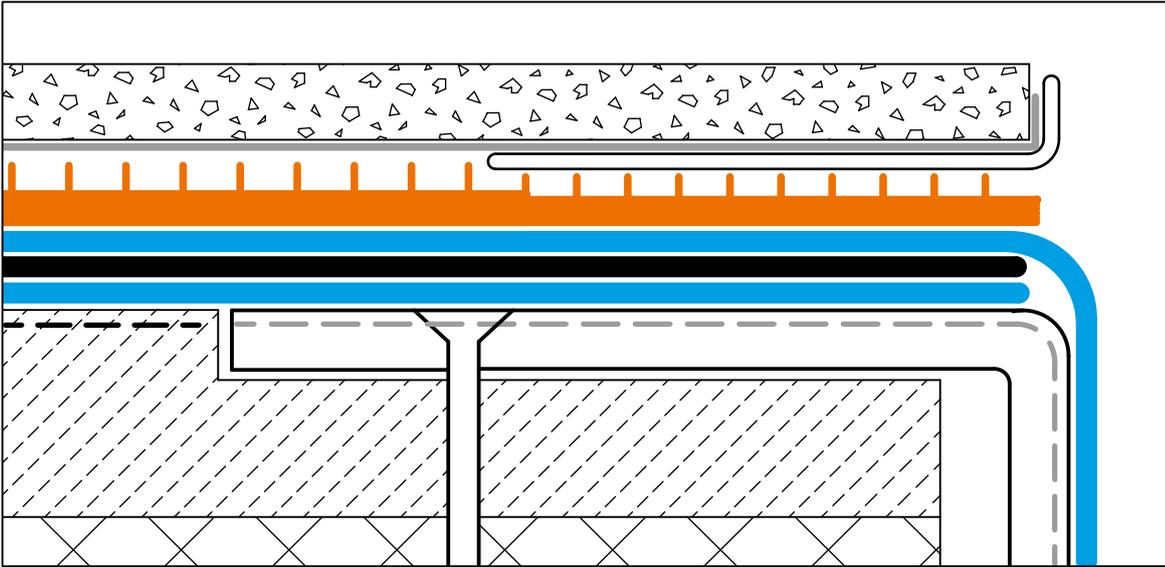


legend:

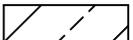
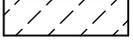
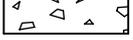
-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

Waterproofing detail 04a: Edge termination with gutter/channel

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed

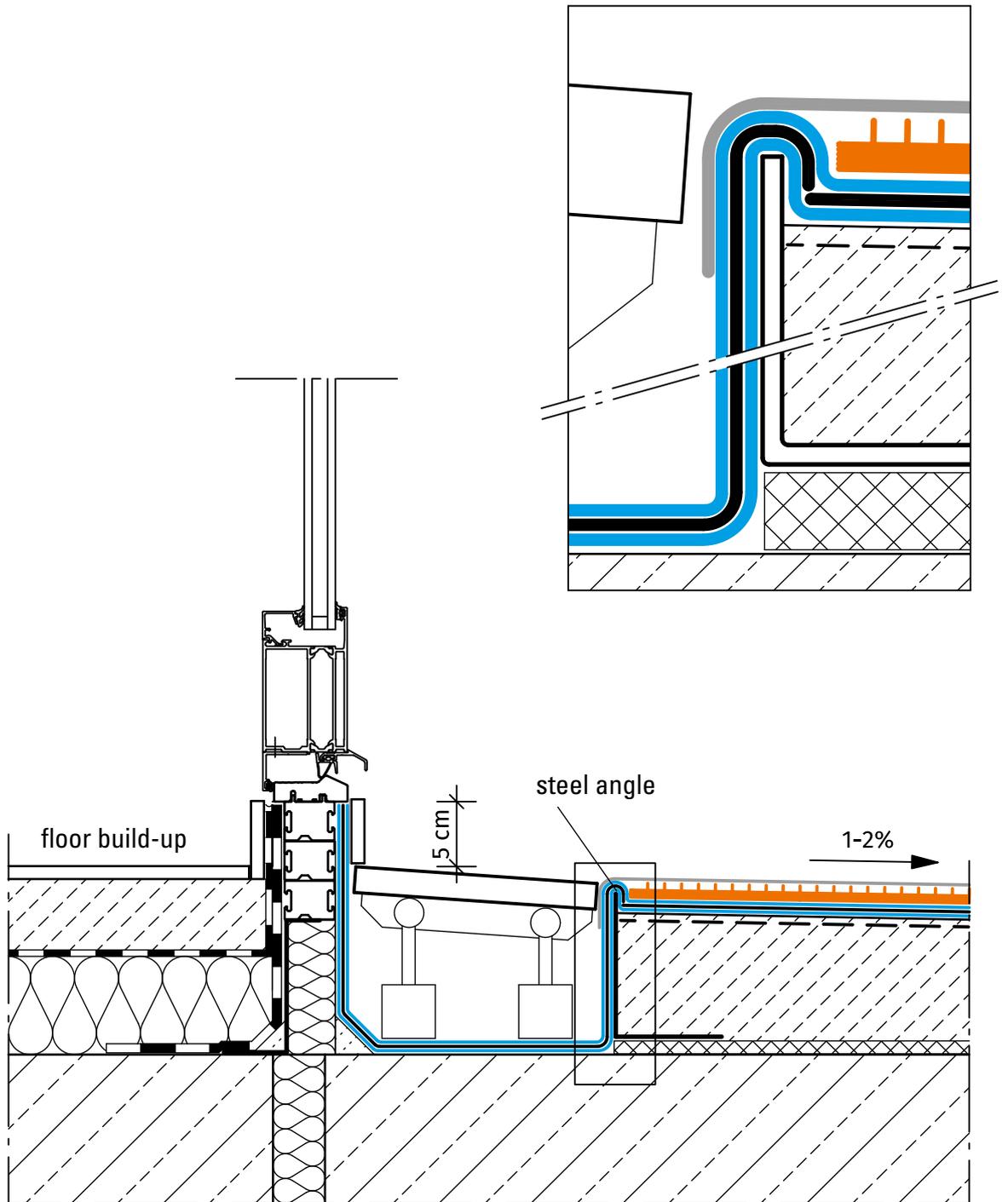


legend:

-  substrate
-  drainage board
-  sloping screed
-  tiles
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

Waterproofing detail 04b: Edge termination with gutter/channel and tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

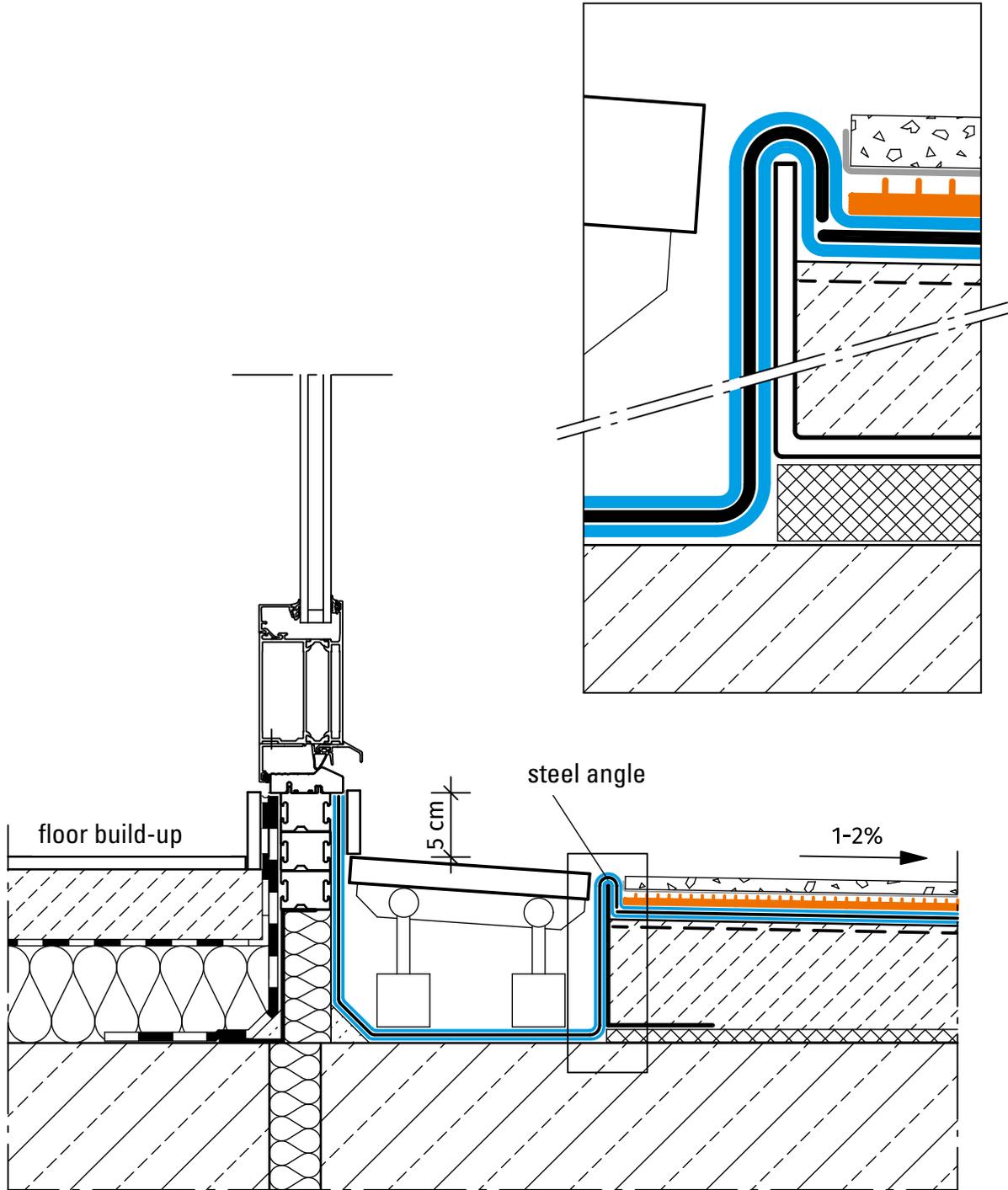


legend:

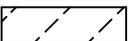
-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

Waterproofing detail 05a: Door joint, 5 cm

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



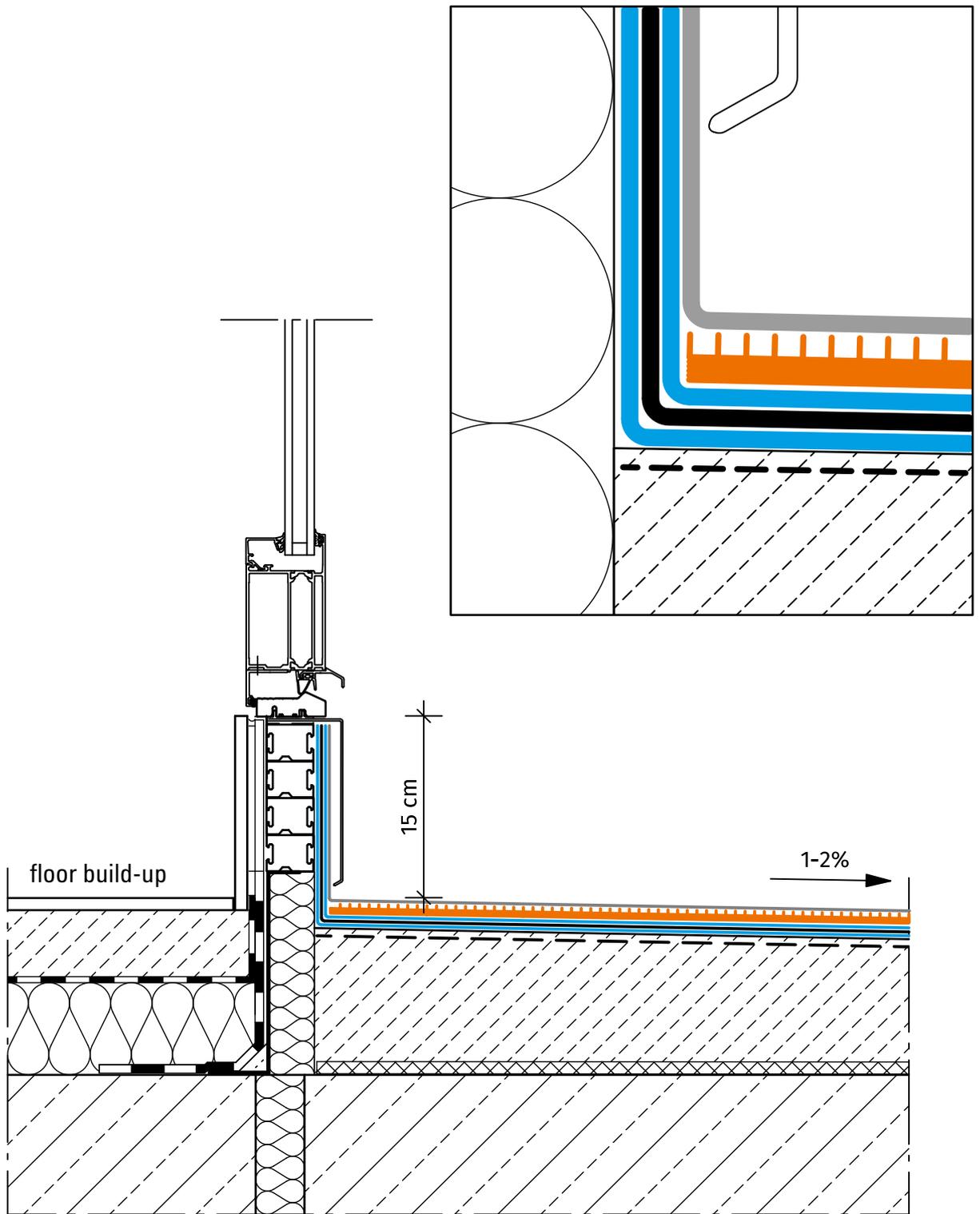
legend:

-  substrate
-  drainage board
-  sloping screed
-  tiles
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

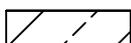
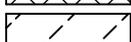
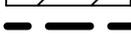
Waterproofing detail 05b: Door joint, 5 cm, with tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

# 06a

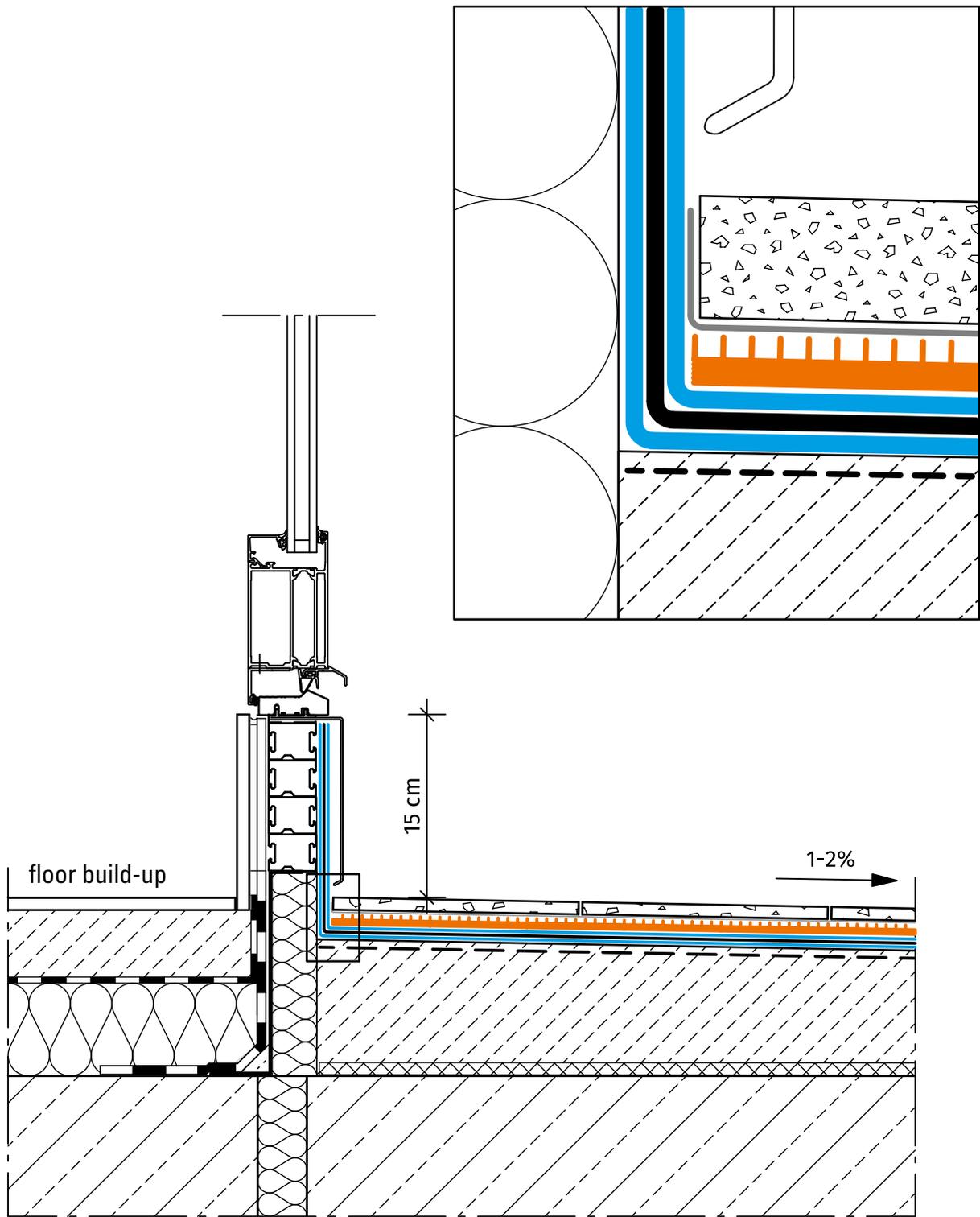


**legend:**

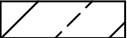
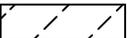
-  substrate
-  drainage board
-  sloping screed
-  primer
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

**Waterproofing detail 06a: Door joint, 15 cm**

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



legend:

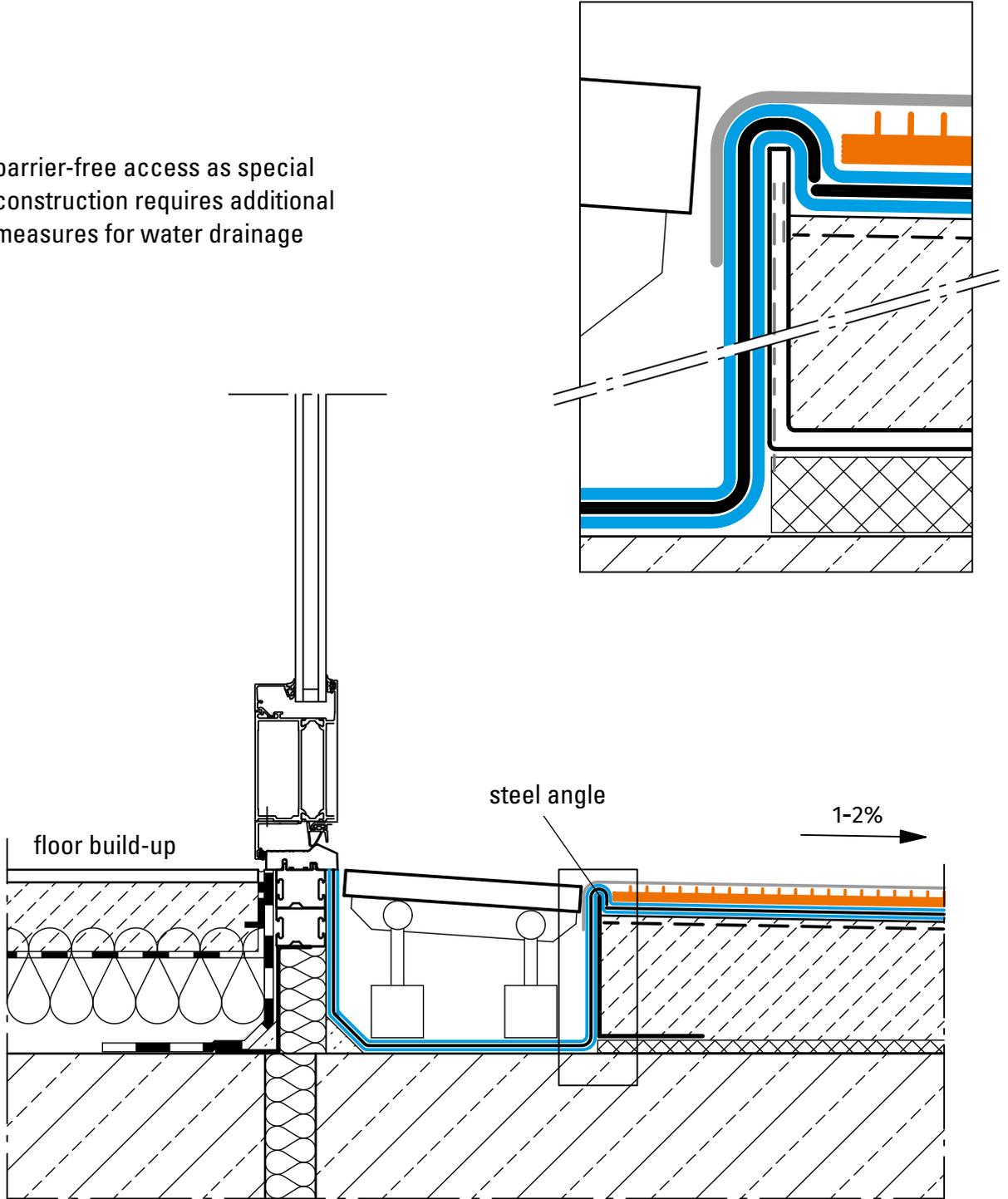
-  substrate
-  drainage board
-  sloping screed
-  tiles
-  primer
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

Waterproofing detail 06b: Door joint, 15 cm, with tiles

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

# 07a

barrier-free access as special construction requires additional measures for water drainage



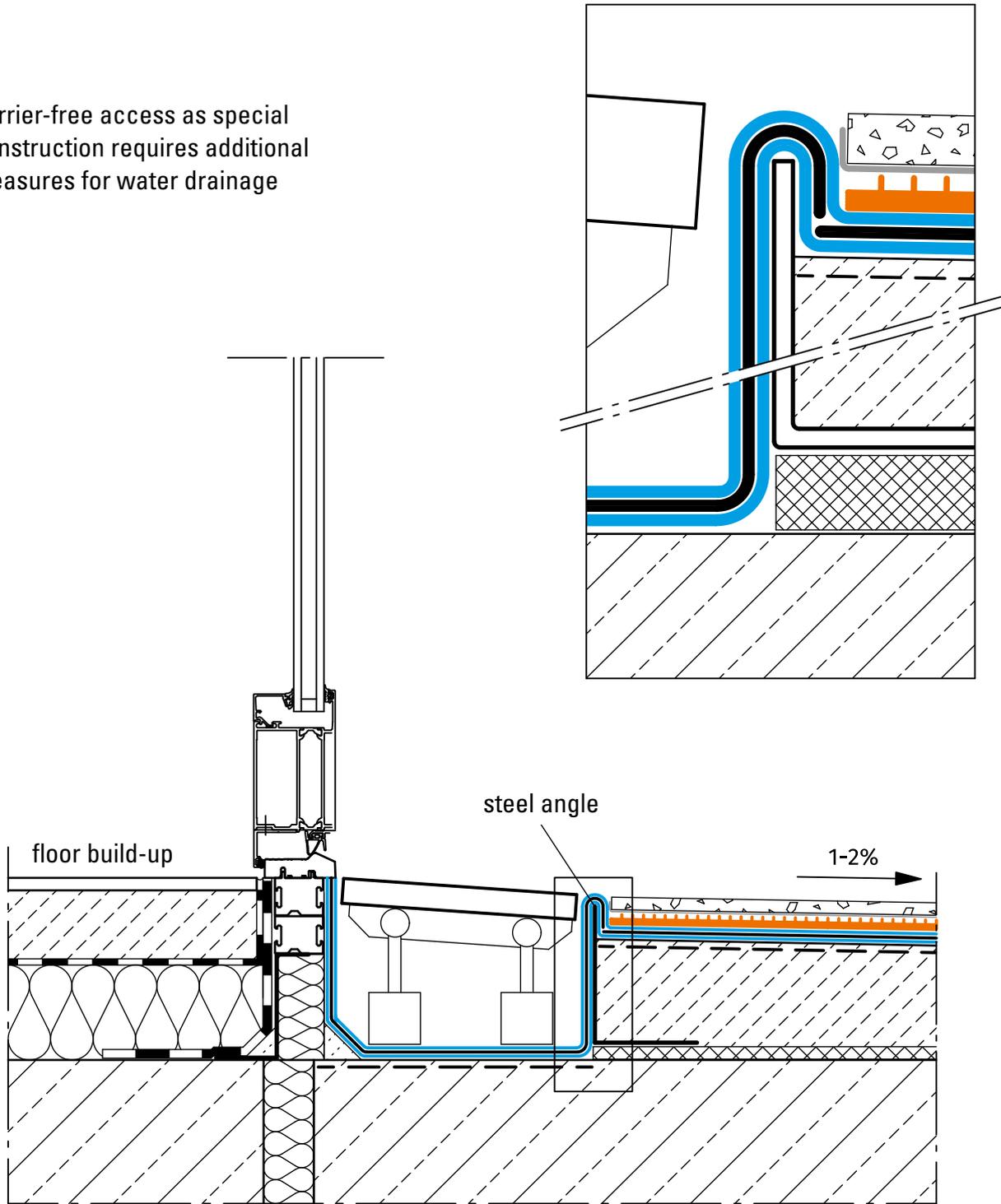
**legend:**

- substrate
- drainage board
- sloping screed
- primer I
- primer II
- waterproof layer
- mesh fleece
- wear layer
- sealing

**Waterproofing detail 07a: Door joint, barrier-free access**

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed

barrier-free access as special construction requires additional measures for water drainage



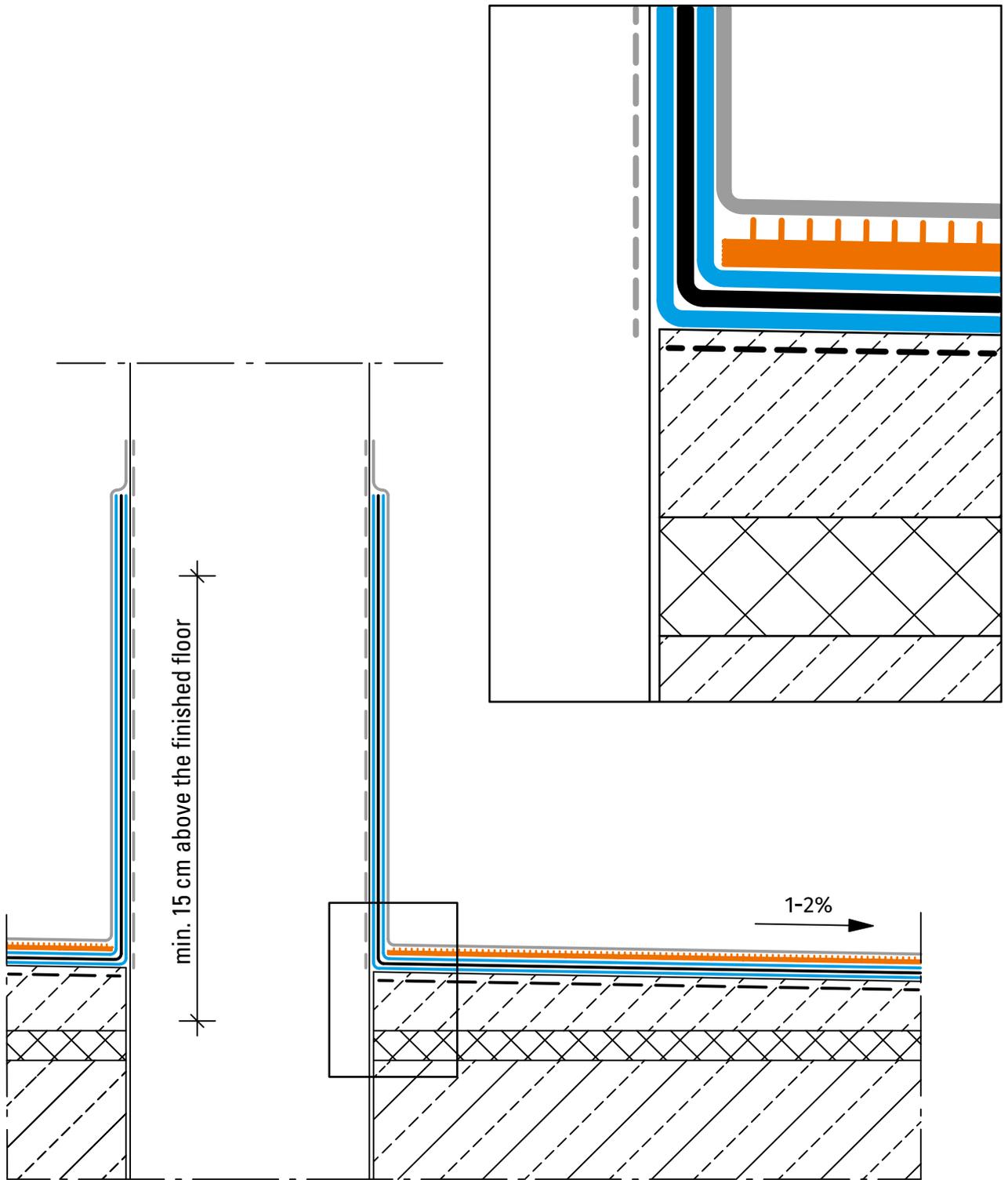
legend:

-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

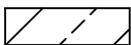
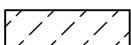
Waterproofing detail 07b: Door joint, barrier-free access, with tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

# 08a

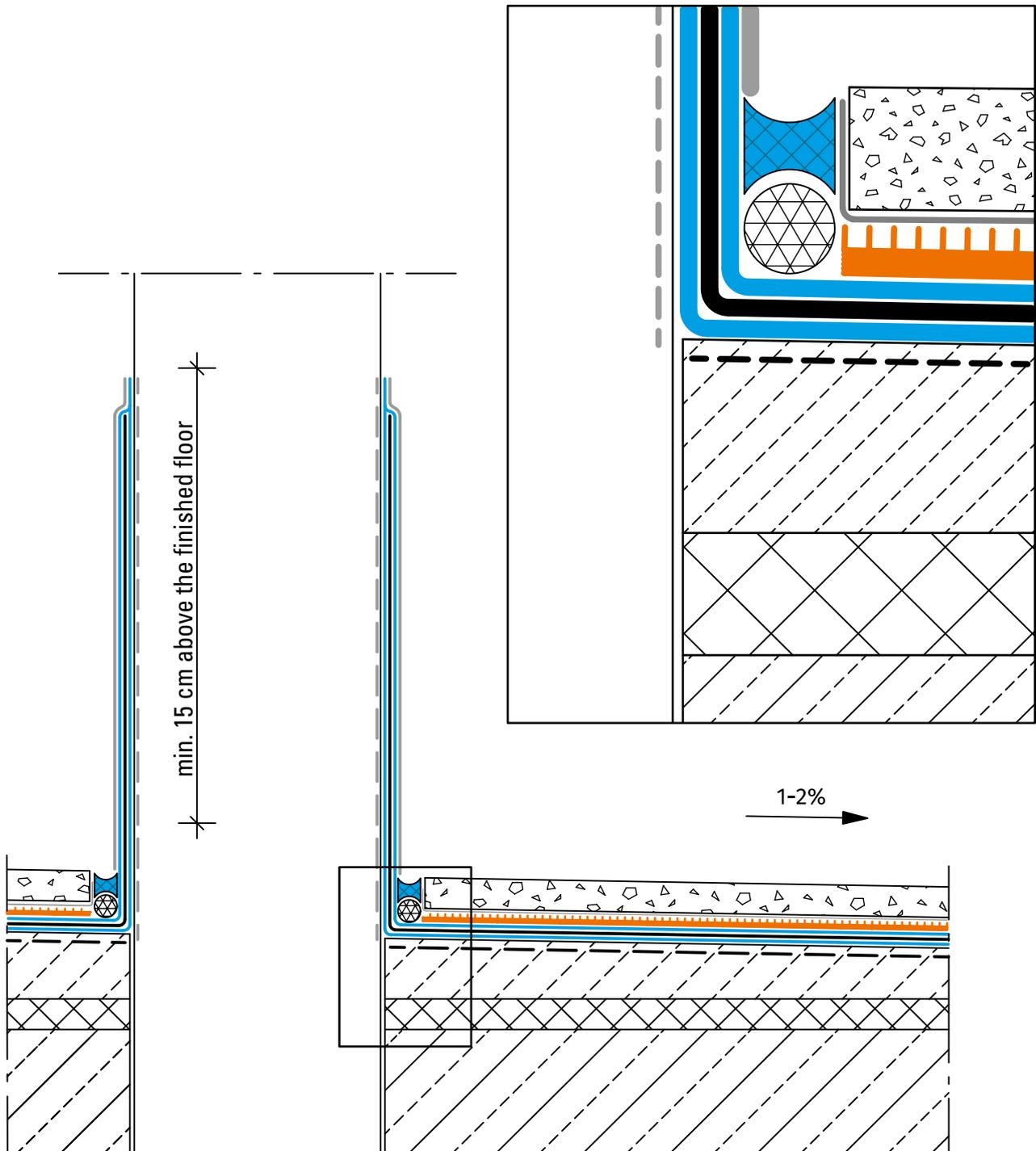


**legend:**

-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

**Waterproofing detail 08a: Pipe penetration/feed-through**

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



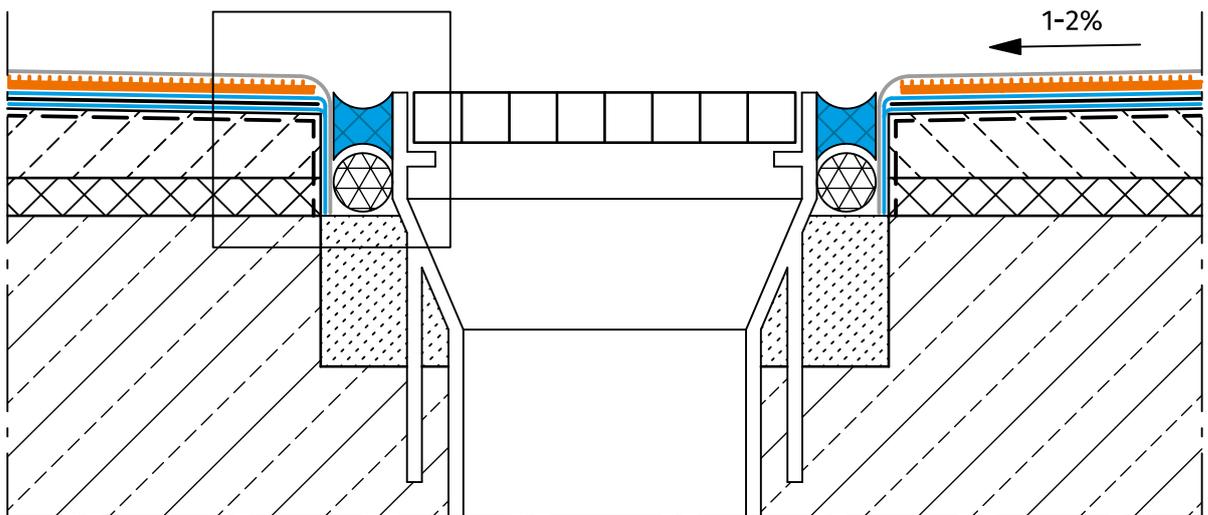
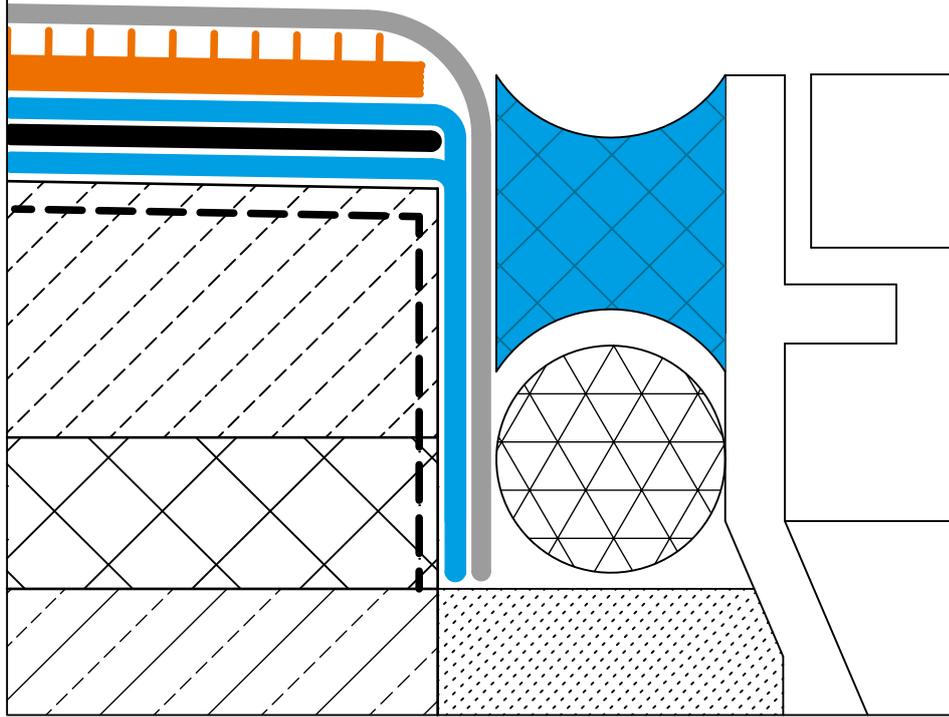
legend:

-  substrate
-  drainage board
-  sloping screed
-  tiles
-  elastic sealant
-  joint filler
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

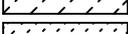
Waterproofing detail 08b: Pipe penetration/feed-through with tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

09a

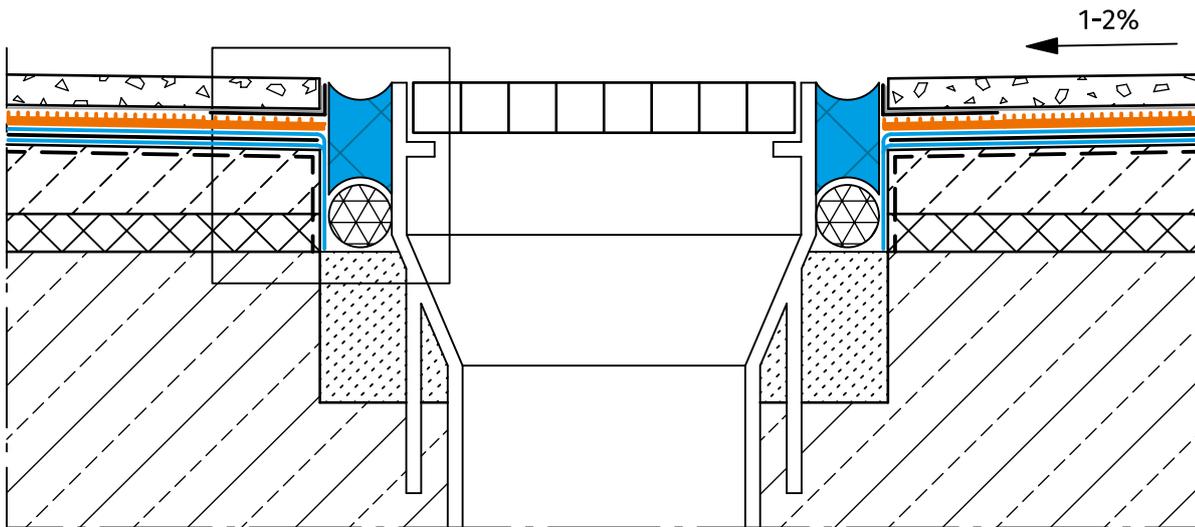
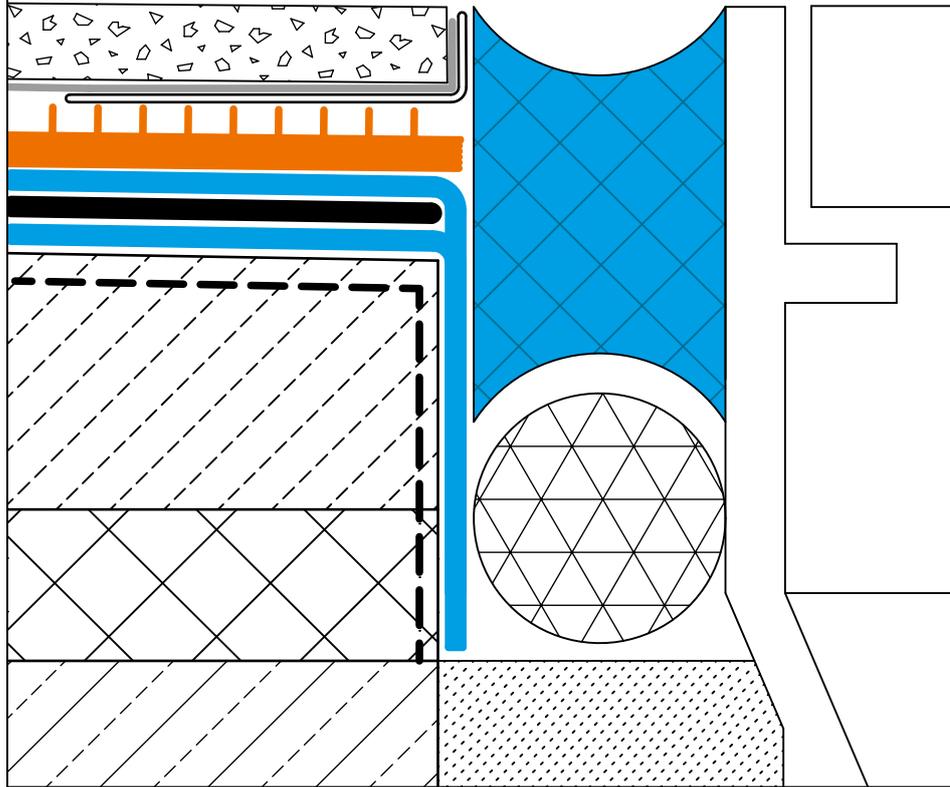


legend:

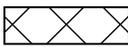
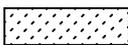
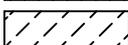
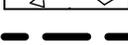
-  substrate
-  drainage board
-  sloping screed
-  mortar
-  elastic sealant
-  joint filler
-  primer
-  waterproof layer
-  wear layer
-  sealing

Waterproofing detail 09a: Gully without flange

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



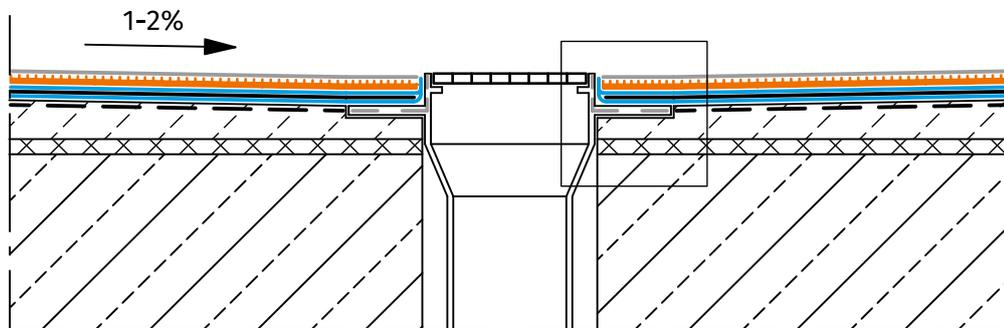
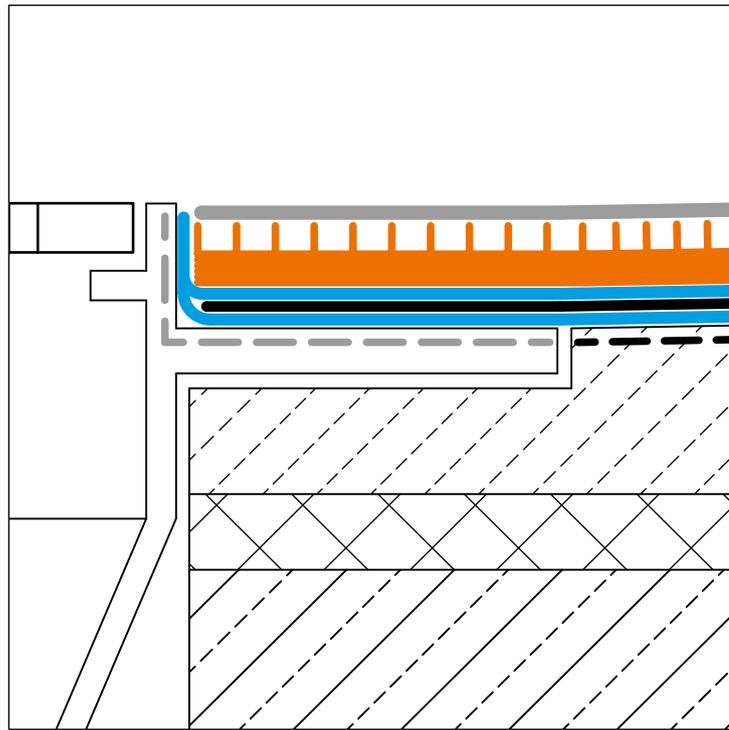
legend:

-  drainage board
-  mortar
-  sloping screed
-  elastic sealant
-  joint filler
-  tiles
-  primer
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

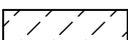
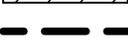
Waterproofing detail 09b: Gully without flange, with tiles

primer	MC-DUR 1177 WV-A
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
elastic sealant	Mycoflex 488 MS
joint filler	closed-cell PE joint filler
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

10a

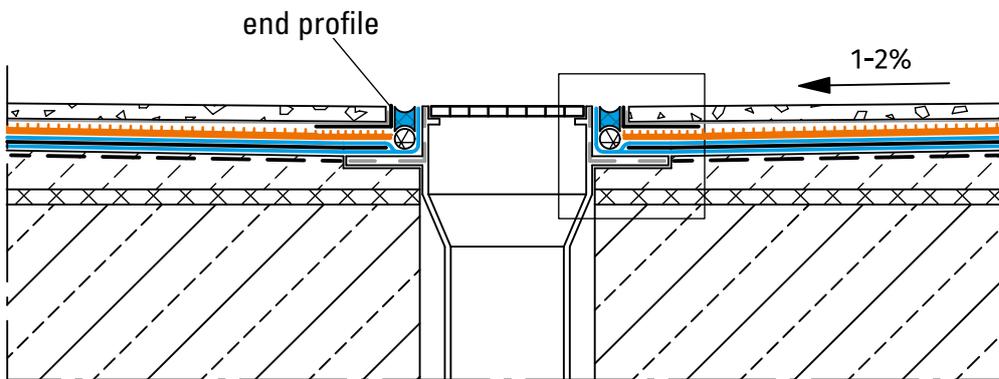
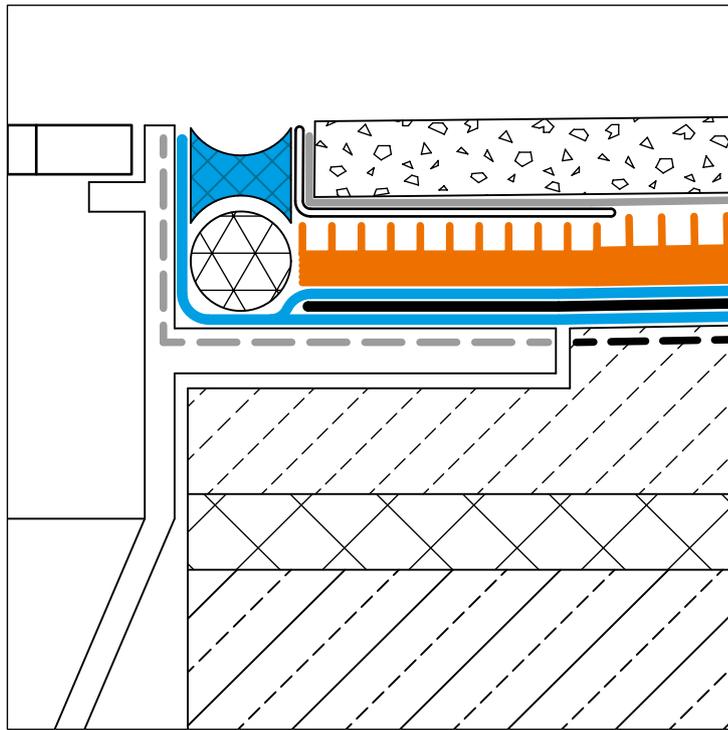


legend:

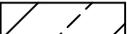
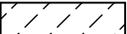
-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

Waterproofing detail 10a: Gully with flange

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
elastic sealant	Mycoflex 488 MS
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



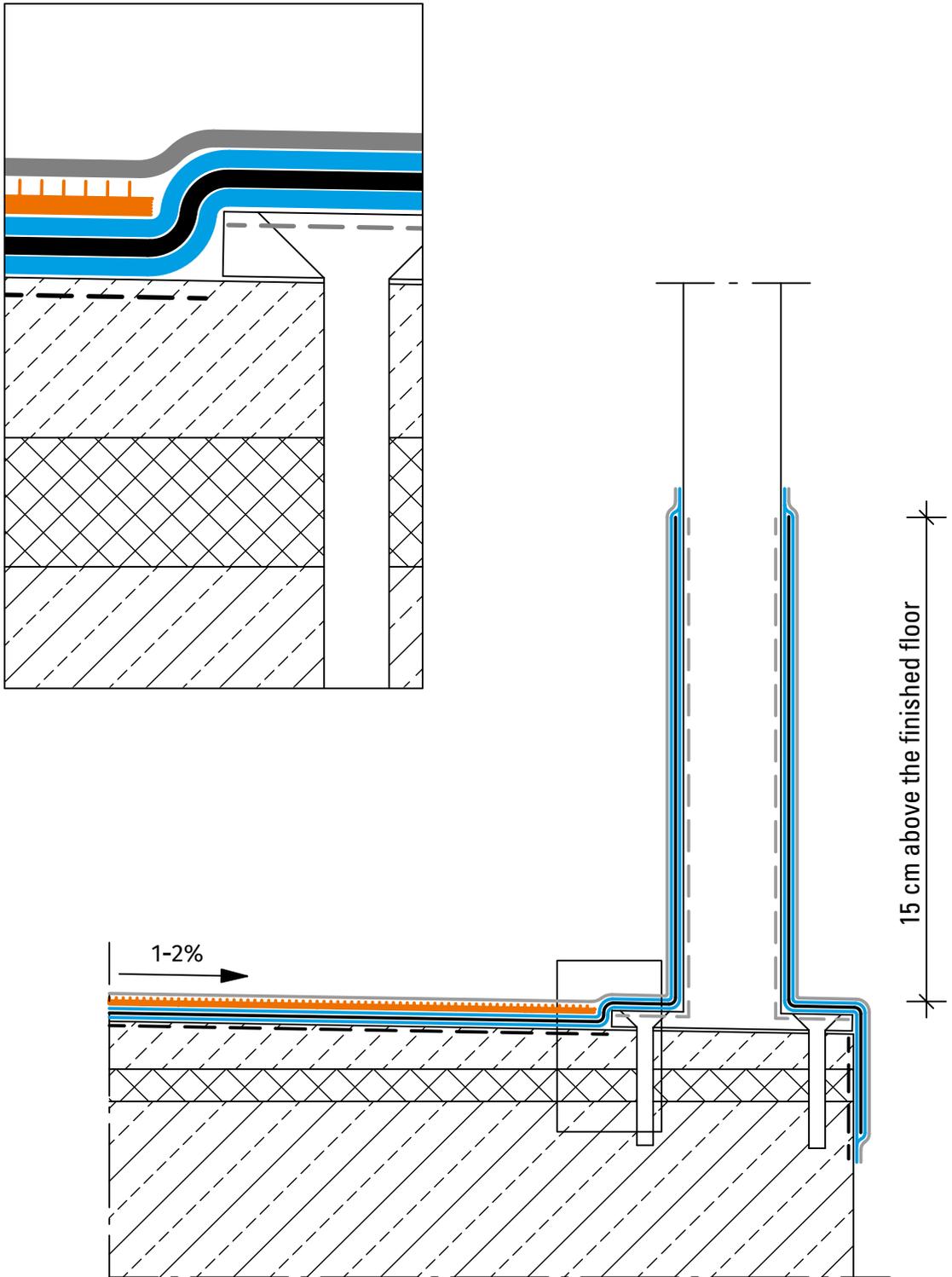
legend:

-  substrate
-  sloping screed
-  drainage board
-  tiles
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

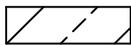
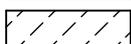
Waterproofing detail 10b: Gully with flange, with tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

11a

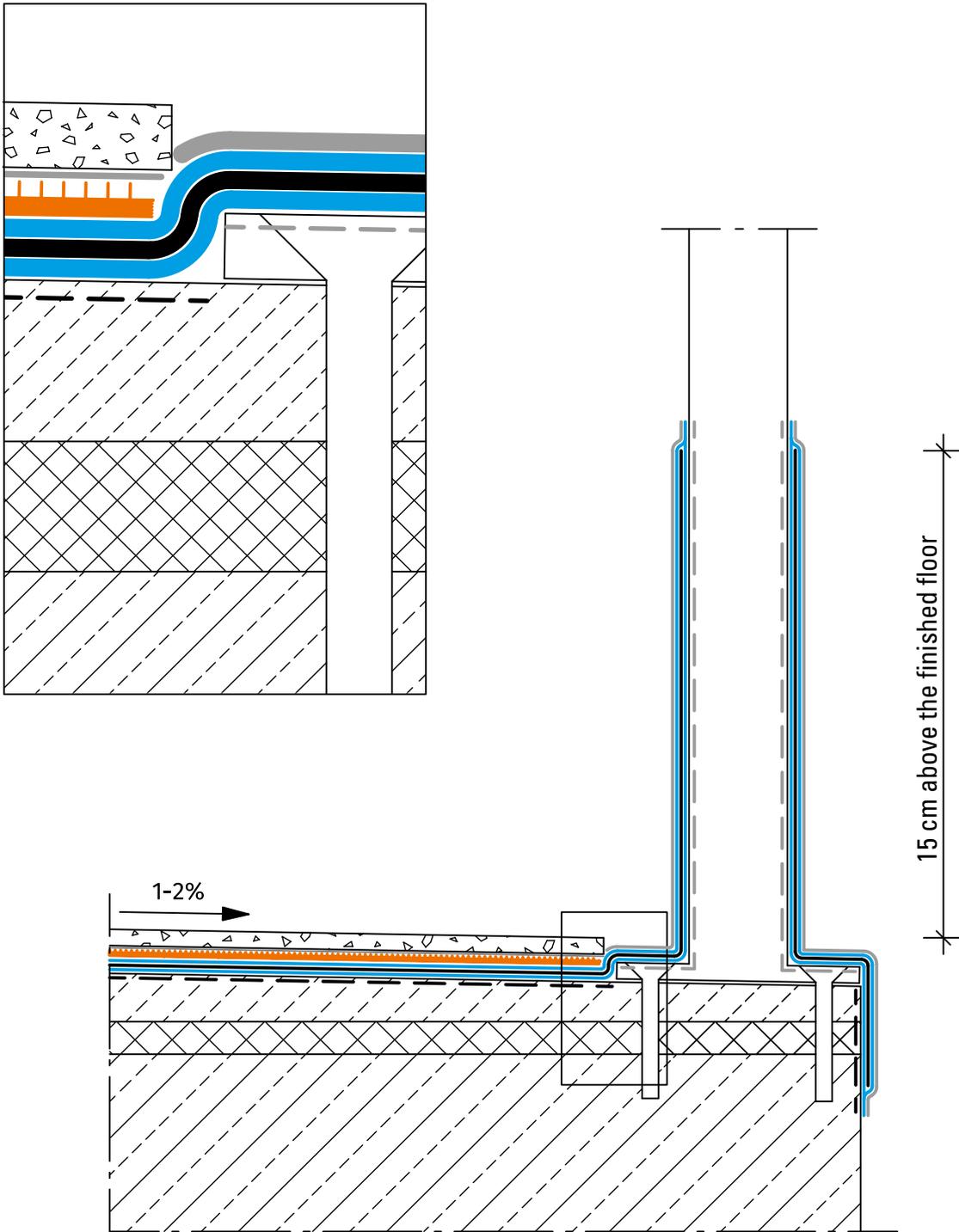


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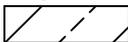
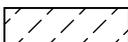
-  substrate
-  drainage board
-  sloping screed
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  wear layer
-  sealing

Waterproofing detail 11a: Railing base

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
elastic sealant	Mycoflex 488 MS
wear layer	MC-DUR TopSpeed + quartz sand
sealing	MC-DUR TopSpeed



legend:

-  substrate
-  sloping screed
-  drainage board
-  tiles
-  primer I
-  primer II
-  waterproof layer
-  mesh fleece
-  bonding layer
-  tile adhesive

Waterproofing detail 11b: Railing base with tiles

primer I	MC-DUR 1177 WV-A
primer II	depending on the material (see primer list)
waterproof layer	MC-DUR TopSpeed flex plus
mesh fleece	MC-Floor Tex
bonding layer	MC-DUR TopSpeed flex plus + quartz sand
tile adhesive	depending on the material

**MC-DUR TopSpeed**  
Waterproofing systems for  
balconies, walkways and roofs

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Germany

IN@mc-bauchemie.com  
mc-bauchemie.com



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Contact details

